

AN ANALYSIS OF COST ALLOCATIONS
IN THE
EMPLOYEES' RETIREMENT AND PENSION SYSTEMS
OF THE STATE OF MARYLAND

February, 1984

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
- Letter of Transmittal	
I. <u>Executive Summary</u>	
- Introduction	1
- Summary of Alternate Cost Allocation Approaches	2
- Recommendations	2
- Cost Analysis	3
II. <u>Analysis of Cost Allocation Approaches</u>	
Alternative #1: Single Cost Approach	9
Alternative #2: Two Cost Approach (State Cost and Locals Combined Cost)	16
Alternative #3: Current Approach Modified (State and Local Units Combined for Future Service Costs; State and Local Units' Costs Individually Determined for Past Service.)	24
Alternative #4: Multiple Cost Approach (State and Local Units' Costs Individually Determined)	32

APPENDICES

I. Adjustments to Future Costs Due to Past Contributions	39
II. Limitations on Salary Increases	48
III. Withdrawals From the Maryland State Retirement Pension Systems	50
IV. Membership Transfers	55
V. Allocation of Assets and Liabilities	56

MILLIMAN & ROBERTSON, INC.
CONSULTING ACTUARIES

2550 M STREET, N.W., SUITE 785

WASHINGTON, D. C. 20037

202 / 429-9760

February 14, 1984

Board of Trustees for
Maryland State Retirement
and Pension Systems
301 West Preston Street
Baltimore, Maryland 21201

Dear Members of the Board:

We are pleased to submit herewith our report of "An Analysis of Cost Allocations in the Employees' Retirement and Pension Systems of the State of Maryland" as requested by the Board.

Our recent study of the financing of the Systems, submitted in July, 1983, indicated that the current approach to cost allocation in both Employees' Systems should be revised to be more equitable to the respective contributors of these Systems. Furthermore, our study presented alternative approaches to cost allocation for the Board's consideration. In this study we present more detail on each of the cost allocation approaches, plus a cost impact analysis which was not presented in the July, 1983 report.

Part I of this report is an executive summary which briefly describes our recommendations and the overall cost impact of each of the four alternative cost allocation approaches. Part II presents more detailed information concerning the specifics of each cost allocation approach and an evaluation of each approach in terms of administration, complexity, and costs. Finally, in the appendices, we include supporting information on various technical aspects of the cost allocation approaches.

We look forward to meeting with you to discuss this report and answer any questions you may have.

Respectfully Submitted,

MILLIMAN & ROBERTSON, INC.

Eugene M. Kalwarski
Eugene M. Kalwarski, F.S.A.
Consulting Actuary

Thomas P. Bleakney
Thomas P. Bleakney, F.S.A.
Consulting Actuary

ALLAN D. AFFLECK, F.S.A.
DAVID V. AXENE, F.S.A.
LARRY D. BABER, F.S.A.
JAMES R. BEROQUIST, F.C.A.S.
GEORGE L. BERRY, F.S.A.
DAVID R. BICKERSTAFF, F.C.A.S.
JANET F. BLEAKNEY, F.S.A.
THOMAS R. BLEAKNEY, F.S.A.
WILLIAM F. BLUHM, F.S.A.
BRUNO V. BOIN, F.S.A.
PETER J. BONDY, F.S.A.
STEPHEN D. BRINK, F.S.A.
ROBERT C. CAMPBELL, F.S.A.
ROBERT M. CHANDLER, F.S.A.
MILTON F. CHAUNER, F.S.A.
MARK A. CHESNER, F.S.A.
BARTON H. CLENNON, F.S.A.
ROBERT L. COLLETT, F.S.A.
JOHN P. COOKSON, F.S.A.
JAMES A. CURTIS, F.S.A.
THOMAS K. CUSTIS, F.S.A.
GARY E. DAHLMAN, F.S.A.
DREW S. DAVIDOFF, F.S.A.
CHRISTIAN J. DESROCHERS, F.S.A.
PHYLLIS A. DORN, F.S.A.
ROBERT H. DREYER, F.S.A.
JEFFERY T. DUKES, F.S.A.
ROBERT J. DYMOWSKI, F.S.A.
JOHN S. ECKERT, F.S.A.
JOHN S. EDWARDS, F.S.A.
CARY B. EKLOF, F.S.A.
DANIEL J. FLAHERTY, F.C.A.S.
JOHN E. FOLEY, F.S.A.
CARY D. FRANKLIN, F.S.A.
JAMES A. GOBES, F.S.A.
DENNIS J. GRAF, F.S.A.
PATRICK J. GRANT, F.C.A.S.
DENNIS L. GRAVES, F.S.A.
JANET S. GRAVES, F.C.A.S.
CHARLES W. HABECK, F.S.A.
DALE S. HAGSTROM, F.S.A.
WILLIAM A. HALVORSON, F.S.A.
RONALD G. HARRIS, F.S.A.
REX D. HEIME, F.S.A.
J. ALAN HERRINGTON, F.S.A.
DOUGLAS C. HOLDEN, F.S.A.
SILVIO INGUI, F.S.A.
FENTON R. ISAACSON, F.S.A.
HOWARD M. ITO, F.C.A.
GREGORY D. JACOBS, F.S.A.
MARKO JOHNSON, F.S.A.
EUGENE M. KALWARSKI, F.S.A.
JACQUELINE J. KEATING, F.S.A.
DOUGLAS F. KLINE, F.C.A.S.
GERALD T. KOGER, F.C.A.
DAVID W. KRUEGER, F.S.A.
TIMOTHY D. LEE, F.S.A.
JOHN M. LENSEN, F.S.A.
LEONARD P. J. LEONC, F.S.A.
FREDERICK L. HAMON, F.S.A.
MARK E. LITOW, F.S.A.
D. ALAN LITTLE, F.S.A.
MICHAEL J. MAHONEY, F.S.A.
BRIAN J. MATTSON, F.S.A.
ROBERT G. MAULE, F.S.A.
DANIEL J. MCCARTHY, F.S.A.
MICHAEL A. MCGRATH, F.S.A.
MICHAEL A. MCMURRAY, F.C.A.S.
DOUGLAS MENKES, F.S.A.
STEVEN J. MIKALIC, F.S.A.
EDWARD P. MOHORIC, F.S.A.
DANIEL F. NICHOLS, F.S.A.
DAVID F. OGDEN, F.S.A.
BRUCE T. OGG, F.S.A.
ROBERT W. OMDAL, F.S.A.
RICHARD E. OSTIUM, F.S.A.
GREGORY W. PAKAL, F.S.A.
PAUL J. PATTERSON, F.S.A.
J. LYNN PLEBOD, F.S.A.
MARGARET L. PEARSON, F.S.A.
KRIS E. PETERSON, F.S.A.
RAYMOND E. PINGZKOWSKI, F.S.A.
ROBERT A. PRIOR, F.S.A.
DONALD A. RHOLL, F.S.A.
STANLEY A. ROBERTS, F.S.A.
STUART A. ROBERTSON, F.S.A.
WALTER S. RUGLAND, F.S.A.
JOHN P. SCHREINER, F.S.A.
PAULAS SEDLACEK, F.S.A.
DONALD J. SEGAL, F.S.A.
T. THOMAS SIMESTER, F.S.A.
JOSEPH D. SINTOV, F.S.A.
WILLIAM D. SMITH, F.S.A.
JOHN B. SNYDER, F.S.A.
STEVEN D. SOMMER, F.S.A.
DENNIS L. STANLEY, F.S.A.
KAREN I. STEFFEN, F.S.A.
DENIS J. SULLIVAN, F.S.A.
DOUGLAS G. TAYLOR, F.S.A.
WILLIAM S. THOMAS, F.S.A.
GERALD G. TOY, F.S.A.
MARK A. TRIEB, F.S.A.
STANLEY B. TULIN, F.S.A.
JAMES R. TYLER, F.S.A.
BRUCE N. VANDER ELS, F.S.A.
ANDREW B. WANG, F.S.A.
RONALD F. WEGNER, F.S.A.
RICHARD E. WHITE, F.S.A.
RICHARD WINKENWERDER, F.S.A.
BRUCE W. WINTERHOF, F.S.A.
BRUCE L. WORKMAN, F.S.A.

WENDELL L. MILLIMAN, F.S.A. 1976
JAMES H. RIGGS, F.S.A. 1976

ALBANY - ATLANTA - CHICAGO - DALLAS - DENVER - HARTFORD - HOUSTON - INDIANAPOLIS - LOS ANGELES - MILWAUKEE - MINNEAPOLIS
NEW YORK - OMAHA - PHILADELPHIA - PHOENIX - PORTLAND - SAN FRANCISCO - SEATTLE - WASHINGTON, D.C.
ASSOCIATED IN CANADA WITH ECKLER, BROWN, SEGAL & CO. LTD.



Executive Summary

A. Introduction

Milliman & Robertson, Inc. (M&R) became the new consulting actuaries of the Maryland State Retirement and Pension Systems (MSRPS) on July 1, 1982. In carrying out our first valuation of the Systems we discovered a number of administrative and technical procedures used in developing costs in the past which we believe contribute to an instability in the long-term financing of the Systems. Our further analysis convinced us that the current procedures lead to highly uncertain, difficult to predict, patterns of costs from year to year. As a result of that concern we undertook a major study on the financing of the Maryland State Retirement and Pension Systems. The study was completed in July of 1983 and submitted to the Board.

One of ten recommendations resulting from our study was that an examination be made of alternative approaches to allocating costs in the Employees' Systems to the State and Local Units. Specifically, we stated:

"The present method of allocating costs between the State and Local Units should be revised to be more equitable. By making these revisions, however, the total costs of the Systems will not change. Rather, a redistribution of costs will most likely occur, in aggregate, between the State and Locals and secondarily among the Local Units themselves. Since this problem is not a financing issue but a policy issue, and since no one method can be described as the best method, we are presenting alternative approaches for consideration. In Part II, Section C, we discuss the advantages and disadvantages of several alternatives for further study."

Two important aspects in connection with the State/Local Unit cost allocation issue were not part of our study. First, while our study presented several alternatives to consider, we did not make any firm recommendations. Second, our study did not provide any cost impact analysis on the various cost allocation approaches. At the January, 1984 MSRPS Board of Trustees meeting we were directed by the Board to complete the study of the State/Local Unit cost allocation issue, and to include in our study both any recommendations we could make and a detailed cost analysis.

In the balance of this section we present (1) a general summary of four alternative cost allocation approaches, (2) our recommendations as a result of this study, and (3), a detailed cost listing for each Local Unit participating in the MSRPS under each alternative cost allocation approach.

B. Summary of Alternative Cost Allocation Approaches

In Section II of this report we present and analyze four alternative cost allocation approaches.

Alternative #1: Single Cost Approach

This approach results in one single contribution rate to be applied to both the State and Local Units payroll in determining annual funding costs.

Alternative #2: (Two Cost Approach)

This approach results in a complete separation of costs between the State and Local Units, with costs determined for the Local Units collectively.

Alternative #3: (Current Approach Modified)

This approach is similar to the approach currently in use, but corrects inequities and technical flaws.

Alternative #4: (Multiple Cost Approach)

This approach results in a complete separation of costs for the State and for each Local Unit participating in the Employees' Retirement and Employees' Pension Systems.

C. Recommendations

As we have stated in the past, the issue of State/Local Unit cost allocations is not an actuarial or financing issue, but rather an allocation policy issue. We frankly feel that each of the four cost allocation approaches contained in this study is reasonable and should be acceptable to both the State and Local Units. However, given that a recommendation by our firm has been requested by the Board, we have developed our ranking of the four alternatives in terms of four criteria:

1. that some cost sharing exists so that individual contributors are protected from erratic cost swings from year to year;
2. that some individual equity exists so that high cost contributors are not completely subsidized by low cost contributors;

3. that complexity in administration and understanding be minimized;
4. that the initial cost impact on the individual Local Units not result in substantial cost increases.

On the basis of these criteria we rank Alternative #2, the Two Cost Approach, as the best approach to be used in the future. This approach maintains sufficient cost sharing to prevent large swings in annual costs for the Local Units. Also, there is some degree of individual equity in that the State's and Local Units' on-going costs will be developed independently of each other. On-going administration and understanding of this approach should be significantly easier than the current procedures used by the MSRPS. Finally, based on our cost analysis, this Alternative, when compared to the other three Alternatives, results in the fewest of number cost increases (approximately 30%) over the current approach.

Our next order of preference is either Alternative #1 (Single Cost Approach) or Alternative #4 (Multiple Cost Approach). The Single Cost Approach provides the greatest degree of cost sharing with the least individual equity. The Multiple Cost Approach is just the opposite (i.e., no cost sharing; complete individual equity). The major drawback of the Single Cost Approach is that, at least initially, the Local Units would be partially subsidizing the State's cost to fund the MSRPS. The major drawback of the Multiple Cost Approach is that nearly 90% of the Local Units would have greater costs in the immediate future than under current procedures.

Our least preferable option of the four approaches described in this study is Alternative #3, Current Approach Modified. This is similar to Alternative #2 (Two Cost Approach), our recommended approach, with two additional drawbacks. First, this approach results in new individual accrued liability allocations which are difficult to explain and understand. Second, this approach results in increased costs for about 60% of the participating Local Units. These drawbacks, we believe, do not offset the only advantage of this approach over our recommended approach, a slight increase in individual equity.

D. Cost Analysis

On the following pages we present a summary of our cost impact analysis. These cost results are based on the June 30, 1983 actuarial valuation of the MSRPS. The employee data for this valuation was provided under current procedures and was not intended to be used for separate individual valuations. Data for individual Local Units was not reconciled in detail. Without such reconciliation, a 1% employee data error, for example, could create substantial deviations in individual cost results, even though it has an insignificant impact on total System costs.

The cost results which follow, therefore, must be considered estimates. Table I-1 below presents a statistical summary of our cost analysis; Table I-2, which follows, provides a detailed cost comparison for each Local Unit under the Employees' Systems.

Table I-1
Estimated 1984 Cost Impact
Current Procedures vs. Alternative Approaches

	<u>Current Approach</u>	<u>#1 Single Cost</u>	<u>#2 Two Cost</u>	<u>#3 Current Modified</u>	<u>#4 Multiple Cost</u>
1. Total estimated 1984 contributions for all Local Units (dollars in millions)	\$38.2	\$32.8	\$31.5	\$36.6	\$43.8
2. Average change in costs due to alternative cost approach	N/A	(\$40,000)	(\$50,000)	(\$10,000)	\$40,000
3. Highest dollar increase in 1984 costs (compared to current)	N/A	\$62,000	\$37,000	\$97,000	\$ 719,000
4. Greatest dollar decrease in 1984 costs (compared to current)	N/A	\$1,180,000	\$1,400,000	\$500,000	\$ 110,000
5. Percentage of Local Unit contributors having an increase in 1984 costs due to alternative cost approach	N/A	39.8%	32.3%	57.9%	85.0%

TABLE I - 2

ESTIMATED 1984 TOTAL DOLLAR COSTS
(EMPLOYEES' SYSTEMS COMBINED)

LOCAL	ESTIMATED CURRENT COST	ALTERNATIVE #1 SINGLE COST	ALTERNATIVE #2 TWO COST	ALTERNATIVE #3 CURRENT MODIFIED	ALTERNATIVE #4 MULTIPLE COST
1 BALTIMORE CO SUPR OF ELECTIONS	\$29,334	\$43,228	\$41,232	\$51,317	\$71,054
2 MARYLAND FOOD CENTER AUTHORITY	27,404	30,788	29,826	30,204	33,451
3 REGIONAL PLANNING COUNCIL	108,145	0	0	0	0
4 METROPOLITAN TRANSIT AUTHORITY	664,236	715,866	692,085	760,780	813,199
5 ALLEGANY COUNTY BOARD OF EDUCATION	534,763	387,326	368,019	457,726	657,483
6 ALLEGANY COUNTY COMMUNITY COLLEGE	29,510	28,542	27,588	29,992	31,981
7 ALLEGANY COUNTY LIBRARY	3,056	3,078	3,040	3,215	4,025
8 ALLEGANY COUNTY COMMISSION	595,711	484,728	462,645	562,038	797,739
9 ALLEGANY COUNTY BOARD OF LICENSE COMM	1,787	1,588	1,568	1,797	3,363
10 ALLEGANY COUNTY SANITARY DISTRICT	49,801	51,200	48,170	54,607	59,025
11 CUMBERLAND, CITY	796,570	467,696	443,529	608,540	868,329
12 REGIONAL EDUC SERVICES OF APPALACHIA	30,720	26,456	25,742	30,078	27,718
13 HEALTH SYSTEMS AGENCY-WESTERN MARYLAND	22,741	25,777	24,929	23,411	22,720
14 ALLEGANY COUNTY TRANSIT AUTHORITY	23,197	24,388	23,372	23,731	26,104
15 CUMBERLAND CITY POLICE DEPARTMENT	171,838	106,240	101,017	144,003	345,201
16 CRESAPTOWN CIVIC IMPROVEMENT ASSN	1,145	713	719	719	2,978
17 ANNE ARUNDEL CO. BOARD OF EDUCATION	1,625,743	1,529,319	1,475,262	1,633,141	1,727,171
18 ANNE ARUNDEL CO. COMMUNITY COLLEGE	94,084	114,706	110,397	119,337	111,946
19 ANNE ARUNDEL CO. GOVERNMENT	610,096	276,934	259,012	502,710	778,833
20 CITY OF ANNAPOLIS	395,051	366,774	355,686	422,875	483,513
21 CHESAPEAKE BAY COMMISSION	7,705	11,294	10,685	9,741	9,300
22 ANNE ARUNDEL CO. BOARD OF ELECTIONS	11,569	16,922	15,953	21,564	38,111
23 MD. HEALTH & HIGHER EDUC.FAC. AUTH.	7,254	10,582	9,936	9,147	8,872
24 LEXINGTON MARKET AUTHORITY	39,818	25,297	24,672	25,761	37,353
25 BALTIMORE CITY BOARD OF ELECTIONS	36,321	53,024	49,843	63,563	75,786
26 CALVERT CO. BOARD OF EDUCATION	192,509	194,495	187,822	205,600	224,061
27 CALVERT CO. COMMISSION	433,254	487,370	466,965	486,524	488,989
28 CAROLINE CO. BOARD OF EDUCATION	125,316	99,858	95,709	107,377	143,815
29 CAROLINE CO. ROADS BOARD	25,472	3,399	3,176	9,116	34,135
30 CAROLINE CO. BOARD OF ELECTIONS	1,661	2,440	2,316	2,713	3,612
31 CARROLL CO. BOARD OF EDUCATION	341,424	333,572	317,820	367,944	453,511
32 CARROLL CO. ED.OF EDUCATION CAFETERIA	134,138	111,136	104,313	136,073	166,589
33 CARROLL CO. COMMISSION	760,738	730,938	700,782	742,150	737,273
34 WESTMINSTER, CITY OF	138,435	120,894	115,060	134,302	159,736
35 MANCHESTER, TOWN OF	14,563	16,821	15,915	15,979	14,970
36 CARROLL CO. BOARD OF ELECTIONS	2,353	3,422	3,197	4,221	5,613
37 CECIL CO. BOARD OF EDUCATION	286,136	295,840	283,239	330,698	368,430
38 CECIL CO. COMMISSION	255,462	229,489	222,963	231,955	230,060
39 ELKTON, TOWN OF	82,172	75,745	73,572	86,513	89,254
40 CECIL CO. SUPR OF ELECTIONS	2,259	3,310	3,131	4,915	4,830

TABLE I - 2
ESTIMATED 1984 TOTAL DOLLAR COSTS
(EMPLOYEES' SYSTEMS COMBINED)

LOCAL	ESTIMATED CURRENT COST	ALTERNATIVE #1 SINGLE COST	ALTERNATIVE #2 TWO COST	ALTERNATIVE #3 CURRENT MODIFIED	ALTERNATIVE #4 MULTIPLE COST
41 CHARLES CO. COMMUNITY COLLEGE	55,346	51,700	49,518	49,330	57,557
42 CHARLES CO. SUPR OF ELECTIONS	4,726	6,914	6,522	6,076	5,706
43 DORCHESTER CO. BOARD OF EDUCATION	135,990	109,453	104,445	132,893	203,632
44 DORCHESTER CO. COMMISSION	151,650	140,053	133,378	158,415	192,991
45 DORCHESTER CO. ROADS BOARD	132,753	105,555	100,431	115,208	166,526
46 CAMBRIDGE, CITY OF	215,355	164,784	159,582	192,307	240,246
47 HOUSING AUTHORITY OF CAMBRIDGE	12,363	11,767	11,362	12,341	11,276
48 HURLOCK, TOWN OF	8,967	11,942	12,036	12,036	9,520
49 DORCHESTER CO. SUPR OF ELECTIONS	3,325	4,835	4,518	4,328	12,482
50 FREDERICK CO. BOARD OF EDUCATION	770,782	697,636	663,813	747,748	864,250
51 FREDERICK CO. COMMISSION	1,157,615	1,151,031	1,111,628	1,193,744	1,194,497
52 BRUNSWICK, TOWN OF	49,019	40,054	39,052	45,772	42,753
53 WALKERSVILLE, TOWN OF	12,227	10,838	10,291	10,283	11,556
54 MIDDLETOWN, TOWN OF	2,521	3,418	3,445	3,445	2,453
55 FREDERICK CO. SUPR OF ELECTIONS	2,458	3,614	3,434	3,504	10,345
56 GARRETT CO. BOARD OF EDUCATION	75,482	66,235	63,484	76,767	88,238
57 GARRETT CO. BOARD OF EDUC.-CAFETERIA	58,299	43,880	41,817	54,961	86,721
58 GARRETT CO. COMMISSION	125,547	76,785	74,222	81,395	92,204
59 GARRETT CO. ROADS BOARD	270,981	194,809	187,586	224,627	313,270
60 GARRETT CO. LIQUOR BOARD	6,766	4,023	4,055	4,055	3,145
61 GARRETT CO. SUPR. OF ELECTIONS	3,456	5,053	4,762	4,199	8,301
62 HARFORD CO. BOARD OF EDUCATION	779,129	798,985	767,604	845,069	860,673
63 HARFORD CO. COMMUNITY COLLEGE	36,237	38,138	36,815	38,161	41,846
64 HARFORD CO. GOVERNMENT	1,729,865	1,533,545	1,463,312	1,705,836	2,443,434
65 HARFORD CO. LIQUOR BOARD	10,694	460	464	464	17,593
66 HARFORD CO. SUPR OF ELECTIONS	4,860	7,153	6,810	10,119	11,042
67 HOWARD CO. BOARD OF EDUCATION	619,648	681,401	656,473	697,621	706,259
68 HOWARD COMMUNITY COLLEGE	25,309	30,813	30,026	29,314	22,664
69 HOWARD CO. GOVERNMENT	2,845,847	2,713,742	2,616,910	2,858,534	2,920,762
70 HOWARD CO. SUPR OF ELECTIONS	5,913	8,638	8,128	9,209	13,305
71 KENT CO. SUPR OF ELECTIONS	1,157	1,706	1,628	2,213	2,836
72 MONTGOMERY CO. BOARD OF EDUCATION	137,709	63,145	59,806	99,364	201,405
73 MONTGOMERY COLLEGE	315,202	337,829	328,409	361,550	483,480
74 MONTGOMERY CO. PUBLIC LIBRARY	3,234	0	0	8,463	13,374
75 MONTGOMERY CO. GOVERNMENT	442,575	301,949	285,860	376,631	483,958
76 GAITHERSBURG, TOWN OF	4,595	0	0	0	5,767
77 MD NATIONAL CAPITAL PARK & PLANN COMM	112,856	35,558	33,642	52,116	131,260
78 INTERSTATE COMM ON POTOMAC RR BASIN	4,499	0	0	0	0
79 ROCKVILLE, CITY OF	54,023	19,805	18,503	35,214	75,277
80 TAKOMA PARK, CITY OF	291,657	222,683	213,214	244,402	351,454

TABLE I - 2

ESTIMATED 1984 TOTAL DOLLAR COSTS
(EMPLOYEES' SYSTEMS COMBINED)

LOCAL	ESTIMATED CURRENT COST	ALTERNATIVE #1 SINGLE COST	ALTERNATIVE #2 TWO COST	ALTERNATIVE #3 CURRENT MODIFIED	ALTERNATIVE #4 MULTIPLE COST
81 BETHESDA FIRE DEPT.	2,098	0	0	0	0
82 CHEVY CHASE FIRE DEPT.	4,208	0	0	0	0
83 PRINCE GEORGES CO. BOARD OF EDUCATION	6,402,873	5,220,758	4,983,588	5,901,632	6,967,290
84 PRINCE GEORGES CO. COMMUNITY COLLEGE	135,187	127,868	123,901	141,065	166,622
85 PRINCE GEORGES CO. MEMORIAL LIBRARY	82,787	86,063	83,133	91,581	99,370
86 PRINCE GEORGES CO. GOVERNMENT	6,471,050	5,592,240	5,394,205	6,131,366	7,189,642
87 GREENBELT, CITY OF	296,533	232,975	221,668	265,232	310,822
88 HYATTSVILLE, CITY OF	198,991	153,578	148,822	173,527	217,165
89 MOUNT RAINIER, CITY OF	44,066	39,533	38,600	50,545	45,642
90 WASHINGTON SUBURBAN SANITARY COMM	348,582	140,734	131,657	240,694	381,047
91 NEW CARROLLTON, CITY OF	71,413	74,046	71,172	72,461	64,628
92 UPPER MARLBORO, TOWN OF	6,164	4,968	4,642	6,506	8,319
93 CHEVERLY, TOWN OF	57,625	51,902	49,946	53,210	70,463
94 PRINCE GEORGES CO. CROSSING GUARDS	66,135	56,134	54,309	62,938	133,127
95 QUEEN ANNE CO. BOARD OF EDUCATION	114,670	105,074	100,335	116,084	143,972
96 QUEEN ANNE CO. COMMISSION	146,034	127,265	122,576	147,266	169,908
97 QUEEN ANNE CO. ROADS BOARD	115,800	87,372	83,650	126,042	160,519
98 QUEEN ANNE CO. SUPR OF ELECTIONS	1,892	2,752	2,571	3,082	4,086
99 ST. MARY'S CO. BOARD OF EDUCATION	314,450	292,206	281,417	322,232	359,696
100 ST. MARY'S CO. COMMISSION	359,512	368,211	351,518	379,947	378,534
101 ST. MARY'S CO. NURSING HOME	85,351	75,582	72,560	82,838	114,680
102 ST. MARY'S CO. SUPR OF ELECTIONS	2,835	4,192	4,020	6,067	7,659
103 SOMERSET CO. BOARD OF EDUCATION	57,896	64,315	61,668	72,506	91,691
104 SOMERSET CO. COMMISSION	74,428	45,666	42,708	68,518	134,567
105 SOMERSET CO. SANITARY DISTRICT	10,444	11,929	11,314	11,435	10,785
106 SOMERSET CO. SUPR OF ELECTIONS	1,752	2,548	2,381	3,782	5,968
107 TALBOT CO. BOARD OF EDUCATION	103,849	67,308	64,828	78,337	137,206
108 TALBOT CO. COUNCIL	82,491	92,017	89,630	98,025	122,651
109 TALBOT CO. SUPR OF ELECTIONS	1,740	2,530	2,364	3,096	3,867
110 WASHINGTON CO. BOARD OF EDUCATION	727,440	609,224	580,715	690,992	894,717
111 HAGERSTOWN JR. COLLEGE	19,388	19,001	18,469	20,035	25,920
112 WASHINGTON CO. LIBRARY	15,068	12,456	11,749	13,073	14,625
113 WASHINGTON CO. COMMISSION	35,268	8,070	7,620	13,660	37,902
114 WASHINGTON CO. ROADS BOARD	9,889	5,434	5,077	12,238	17,409
115 WASHINGTON CO. LICENSE COMMISSIONERS	311	323	302	430	386
116 HAGERSTOWN, CITY OF	1,171,213	769,821	739,270	969,868	1,301,005
117 WASHINGTON CO. SANITARY DISTRICT	2,442	2,412	2,254	3,869	22,901
118 WASHINGTON CO. SUPR OF ELECTIONS	5,988	8,745	8,224	12,481	17,436
119 WOR-WIC TECH COMMUNITY COLLEGE	378	579	583	583	336
120 WICOMICO COUNTY ROADS BOARD	4,621	0	0	0	6,606

TABLE I - 2

ESTIMATED 1984 TOTAL DOLLAR COSTS
(EMPLOYEES' SYSTEMS COMBINED)

LOCAL	ESTIMATED CURRENT COST	ALTERNATIVE #1 SINGLE COST	ALTERNATIVE #2 TWO COST	ALTERNATIVE #3 CURRENT MODIFIED	ALTERNATIVE #4 MULTIPLE COST
121 SALISBURY, CITY OF	576,891	460,957	439,538	554,913	682,342
122 WICOMICO CO. DEPT. RECREATION & PARKS	10,860	9,474	8,852	9,936	19,187
123 FRUITLAND, CITY OF	9,140	13,786	13,613	13,093	10,142
124 WICOMICO CO. SUPR OF ELECTIONS	2,799	4,140	3,971	4,248	8,977
125 WORCHESTER CO. BOARD OF EDUCATION	73,067	77,007	74,758	81,323	94,434
126 WORCHESTER CO. COMMISSION	206,710	211,429	204,497	224,660	226,699
127 WORCHESTER CO. ROADS BOARD	154,018	84,282	79,535	102,711	160,890
128 WORCHESTER CO. LIQUOR BOARD	48,339	42,689	40,864	48,800	61,262
129 POCOMOKE CITY	63,149	58,063	55,591	67,296	69,184
130 SNOW HILL, TOWN OF	46,273	30,918	30,436	30,873	33,914
131 BERLIN, TOWN OF	44,831	45,268	43,996	52,779	51,753
132 WORCHESTER CO. BOARD OF ELECTIONS	2,573	3,741	3,495	4,082	5,587
133 NORTHEAST MD. WASTE DISPOSAL AUTH.	14,120	20,050	19,627	18,349	15,803
TOTAL	\$38,299,764	\$32,838,758	\$31,510,112	\$36,624,095	\$43,843,537

ALTERNATIVE #1: Single Cost Approach

A. Description

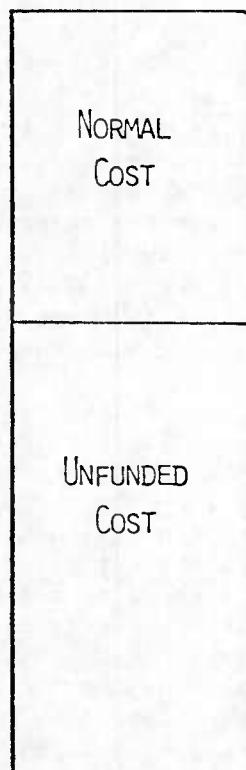
This alternative results in a complete merger of the State and Local Units' participation in the Employees' Retirement System and in the Employees' Pension System.

Ultimately this alternative would eliminate the need for separate determination and disclosure of costs between the State and the Local Units. The same contribution rate (normal and unfunded actuarial liability) will be applied to the respective payrolls of the State and the Local Units.

Costs will be determined under the Entry Age Normal funding method, as described in our prior study on the financing of the Systems, without further modification.

GRAPHIC ILLUSTRATION

TOTAL CONTRIBUTION
RATE



SAME RATE FOR
THE STATE AND
ALL LOCAL UNITS

B. Specifics

1. Separate Accrued Liability Determinations:
 - a. 1980 Allocations - Cancelled.
 - b. New Individual Allocations - None.
2. Funding of Unfunded Accrued Liability Amounts: Amortized jointly (State and Locals) as a level % of payroll.
3. Prior Contributions: Adjustments made for over- or under-payments since 1980 as described in Appendix I.
4. Salary Abuses: Remedial procedures applied as described in Appendix II.
5. Costs For New Local Units: Same rate as current contributors.
6. Withdrawing Local Units: Assess withdrawal charge as described in Appendix III.
7. Transfers to the Pension System: Costs adjusted as described in Appendix IV.

C. Evaluation

1. Administrative Concerns: Ultimately this alternative is the simplest and least expensive to administer. Initially, however, procedures need to be refined to accomplish the objectives described in items B.3, B.4, and B.6 above. (i.e., prior contributions made, salary abuses, and withdrawals).
2. Complexity: This alternative is the simplest alternative to understand and communicate.
3. Cost Fluctuation: This alternative will produce the least fluctuation due to experience gains and losses in year to year costs for an individual contributor. All experience gains and losses will be shared equally.

4. Equity in Cost Allocation:

Complete cost sharing exists under this approach. Therefore, there will be subsidization of older groups and groups having poor plan experience (e.g., salary increases) by younger groups and groups with favorable on-going experience.

D. Conclusion

This approach, which is widely used by negotiated pension funds and used by some other state-wide systems, would be considered ideal if not for the cost sharing implications mentioned in C.4 above. Also, unless procedures such as those described in Appendix II are implemented, abuses may occur with respect to the granting of pay increases. The retirement cost associated with these increases are spread equally among all contributors.

E. Cost Analysis

On the following pages we present a detailed comparison of estimated 1984 costs for each Local Unit contributing to the Employees' Retirement and Pension Systems of the State of Maryland.

TABLE II - 1

1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #1

LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #1: SINGLE COST SYSTEM	
	Retirement	Pension	Retirement	Pension
1 BALTIMORE CO SUPR OF ELECTIONS	\$21,846	\$7,488	\$31,770	\$11,459
2 MARYLAND FOOD CENTER AUTHORITY	16,652	10,752	16,370	14,418
3 REGIONAL PLANNING COUNCIL	105,206	2,939	0	0
4 METROPOLITAN TRANSIT AUTHORITY	448,544	215,692	399,993	315,874
5 ALLEGANY COUNTY BOARD OF EDUCATION	480,244	54,519	303,898	83,428
6 ALLEGANY COUNTY COMMUNITY COLLEGE	19,639	9,871	16,033	12,509
7 ALLEGANY COUNTY LIBRARY	1,596	1,460	844	2,234
8 ALLEGANY COUNTY COMMISSION	509,025	86,685	352,076	132,651
9 ALLEGANY COUNTY BOARD OF LICENSE COMM	946	842	431	1,157
10 ALLEGANY COUNTY SANITARY DISTRICT	46,716	3,086	46,654	4,546
11 CUMBERLAND, CITY	738,329	58,240	378,573	89,123
12 REGIONAL EDUC SERVICES OF APPALACHIA	21,456	9,264	12,535	13,921
13 HEALTH SYSTEMS AGENCY-WESTERN MARYLAND	15,230	7,511	14,283	11,494
14 ALLEGANY COUNTY TRANSIT AUTHORITY	17,539	5,657	16,429	7,960
15 CUMBERLAND CITY POLICE DEPARTMENT	148,548	23,291	82,368	23,872
16 CRESAPTOWN CIVIC IMPROVEMENT ASSN	0	1,145	0	713
17 ANNE ARUNDEL CO. BOARD OF EDUCATION	1,207,366	418,377	898,708	630,612
18 ANNE ARUNDEL CO. COMMUNITY COLLEGE	65,304	28,780	70,859	43,847
19 ANNE ARUNDEL CO. GOVERNMENT	607,666	2,431	273,214	3,720
20 CITY OF ANNAPOLIS	279,562	115,488	190,046	176,728
21 CHESAPEAKE BAY COMMISSION	6,533	1,173	9,500	1,794
22 ANNE ARUNDEL CO. BOARD OF ELECTIONS	10,297	1,273	14,974	1,948
23 MD. HEALTH & HIGHER EDUC.FAC. AUTH.	6,820	434	9,918	664
24 LEXINGTON MARKET AUTHORITY	26,033	13,785	11,207	14,090
25 BALTIMORE CITY BOARD OF ELECTIONS	33,640	2,682	48,920	4,104
26 CALVERT CO. BOARD OF EDUCATION	134,946	57,563	111,550	82,944
27 CALVERT CO. COMMISSION	323,868	109,386	329,563	157,806
28 CAROLINE CO. BOARD OF EDUCATION	102,155	23,161	67,097	32,761
29 CAROLINE CO. ROADS BOARD	25,472	0	3,399	0
30 CAROLINE CO. BOARD OF ELECTIONS	1,342	319	1,952	489
31 CARROLL CO. BOARD OF EDUCATION	286,702	54,722	249,833	83,739
32 CARROLL CO. BD. OF EDUCATION CAFETERIA	129,886	4,252	104,629	6,507
33 CARROLL CO. COMMISSION	602,126	158,612	488,219	242,719
34 WESTMINSTER, CITY OF	119,713	18,722	92,245	28,650
35 MANCHESTER, TOWN OF	12,797	1,765	14,120	2,701
36 CARROLL CO. BOARD OF ELECTIONS	2,353	0	3,422	0
37 CECIL CO. BOARD OF EDUCATION	225,453	60,684	202,977	92,862
38 CECIL CO. COMMISSION	179,033	76,428	113,315	116,174
39 ELKTON, TOWN OF	55,688	26,484	37,657	38,088
40 CECIL CO. SUPR OF ELECTIONS	1,922	337	2,794	516

TABLE II - 1

1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #1

LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #1: SINGLE COST SYSTEM	
	Retirement	Pension	Retirement	Pension
41 CHARLES CO. COMMUNITY COLLEGE	43,041	12,305	35,192	16,508
42 CHARLES CO. SUPR OF ELECTIONS	4,178	548	6,075	839
43 DORCHESTER CO. BOARD OF EDUCATION	114,311	21,679	79,790	29,663
44 DORCHESTER CO. COMMISSION	129,010	22,640	105,733	34,320
45 DORCHESTER CO. ROADS BOARD	116,672	16,080	80,947	24,607
46 CAMBRIDGE, CITY OF	165,428	49,927	88,383	76,401
47 HOUSING AUTHORITY OF CAMBRIDGE	8,744	3,619	6,755	5,011
48 HURLOCK, TOWN OF	0	8,967	0	11,942
49 DORCHESTER CO. SUPR OF ELECTIONS	3,325	0	4,835	0
50 FREDERICK CO. BOARD OF EDUCATION	662,674	108,108	534,450	163,185
51 FREDERICK CO. COMMISSION	823,562	334,053	658,971	492,060
52 BRUNSWICK, TOWN OF	34,485	14,533	17,915	22,139
53 WALKERSVILLE, TOWN OF	10,720	1,507	8,595	2,243
54 MIDDLETOWN, TOWN OF	0	2,521	0	3,418
55 FREDERICK CO. SUPR OF ELECTIONS	1,943	515	2,825	788
56 GARRETT CO. BOARD OF EDUCATION	61,208	14,274	44,484	21,751
57 GARRETT CO. BOARD OF EDUC.-CAFETERIA	50,475	7,823	32,734	11,145
58 GARRETT CO. COMMISSION	103,171	22,376	43,064	33,721
59 GARRETT CO. ROADS BOARD	218,840	52,141	119,053	75,756
60 GARRETT CO. LIQUOR BOARD	4,013	2,754	0	4,023
61 GARRETT CO. SUPR. OF ELECTIONS	3,096	360	4,502	551
62 HARFORD CO. BOARD OF EDUCATION	590,132	188,997	512,164	286,821
63 HARFORD CO. COMMUNITY COLLEGE	25,624	10,613	22,064	16,073
64 HARFORD CO. GOVERNMENT	1,450,922	278,943	1,118,893	414,651
65 HARFORD CO. LIQUOR BOARD	10,393	301	0	460
66 HARFORD CO. SUPR OF ELECTIONS	3,735	1,125	5,432	1,721
67 HOWARD CO. BOARD OF EDUCATION	439,679	179,969	411,879	269,523
68 HOWARD COMMUNITY COLLEGE	13,405	11,904	13,998	16,815
69 HOWARD CO. GOVERNMENT	2,037,072	808,776	1,607,070	1,106,671
70 HOWARD CO. SUPR OF ELECTIONS	5,406	507	7,862	776
71 KENT CO. SUPR OF ELECTIONS	852	305	1,239	467
72 MONTGOMERY CO. BOARD OF EDUCATION	130,515	7,194	52,136	11,009
73 MONTGOMERY COLLEGE	180,154	135,048	164,276	173,553
74 MONTGOMERY CO. PUBLIC LIBRARY	3,234	0	0	0
75 MONTGOMERY CO. GOVERNMENT	409,154	33,421	251,011	50,938
76 GAITHERSBURG, TOWN OF	4,595	0	0	0
77 MD NATIONAL CAPITAL PARK & PLANN COMM	108,821	4,035	29,850	5,708
78 INTERSTATE COMM ON POTOMAC RR BASIN	4,499	0	0	0
79 ROCKVILLE, CITY OF	54,023	0	19,805	0
80 TAKOMA PARK, CITY OF	245,798	45,859	152,558	70,124

TABLE II - 1
1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #1

LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #1: SINGLE COST SYSTEM	
	Retirement	Pension	Retirement	Pension
81 BETHESDA FIRE DEPT.	2,098	0	0	0
82 CHEVY CHASE FIRE DEPT.	4,208	0	0	0
83 PRINCE GEORGES CO. BOARD OF EDUCATION	5,451,846	951,028	3,782,941	1,437,817
84 PRINCE GEORGES CO. COMMUNITY COLLEGE	94,452	40,735	67,631	60,237
85 PRINCE GEORGES CO. MEMORIAL LIBRARY	58,605	24,182	49,059	37,005
86 PRINCE GEORGES CO. GOVERNMENT	4,880,808	1,590,241	3,291,236	2,301,004
87 GREENBELT, CITY OF	260,662	35,871	178,637	54,338
88 HYATTSVILLE, CITY OF	151,426	47,566	81,121	72,457
89 MOUNT RAINIER, CITY OF	29,109	14,957	16,922	22,611
90 WASHINGTON SUBURBAN SANITARY COMM	347,078	1,504	138,433	2,301
91 NEW CARROLLTON, CITY OF	53,230	18,183	47,004	27,043
92 UPPER MARLBORO, TOWN OF	6,164	0	4,968	0
93 CHEVERLY, TOWN OF	42,029	15,596	32,156	19,746
94 PRINCE GEORGES CO. CROSSING GUARDS	49,602	16,533	30,835	25,299
95 QUEEN ANNE CO. BOARD OF EDUCATION	95,451	19,220	75,662	29,412
96 QUEEN ANNE CO. COMMISSION	112,918	33,116	77,373	49,893
97 QUEEN ANNE CO. ROADS BOARD	97,880	17,919	59,950	27,422
98 QUEEN ANNE CO. SUPR OF ELECTIONS	1,892	0	2,752	0
99 ST. MARY'S CO. BOARD OF EDUCATION	236,822	77,628	177,979	114,228
100 ST. MARY'S CO. COMMISSION	289,736	69,776	266,337	101,873
101 ST. MARY'S CO. NURSING HOME	68,092	17,259	49,171	26,411
102 ST. MARY'S CO. SUPR OF ELECTIONS	1,922	914	2,794	1,398
103 SOMERSET CO. BOARD OF EDUCATION	43,877	14,019	42,861	21,453
104 SOMERSET CO. COMMISSION	73,947	482	45,094	572
105 SOMERSET CO. SANITARY DISTRICT	8,942	1,502	9,631	2,298
106 SOMERSET CO. SUPR OF ELECTIONS	1,752	0	2,548	0
107 TALBOT CO. BOARD OF EDUCATION	86,020	17,829	40,934	26,374
108 TALBOT CO. COUNCIL	49,240	33,251	42,306	49,711
109 TALBOT CO. SUPR OF ELECTIONS	1,740	0	2,530	0
110 WASHINGTON CO. BOARD OF EDUCATION	625,187	102,253	452,749	156,474
111 HAGERSTOWN JR. COLLEGE	13,033	6,355	9,277	9,725
112 WASHINGTON CO. LIBRARY	14,076	992	10,938	1,518
113 WASHINGTON CO. COMMISSION	34,482	786	6,979	1,091
114 WASHINGTON CO. ROADS BOARD	9,889	0	5,434	0
115 WASHINGTON CO. LICENSE COMMISSIONERS	311	0	323	0
116 HAGERSTOWN, CITY OF	993,424	177,790	497,755	272,065
117 WASHINGTON CO. SANITARY DISTRICT	2,442	0	2,412	0
118 WASHINGTON CO. SUPR OF ELECTIONS	5,506	482	8,007	737
119 WOR-WIC TECH COMMUNITY COLLEGE	0	378	0	579
120 WICOMICO COUNTY ROADS BOARD	4,621	0	0	0

TABLE II - 1

1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #1

LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #1: SINGLE COST SYSTEM	
	Retirement	Pension	Retirement	Pension
121 SALISBURY, CITY OF	497,439	79,452	340,508	120,449
122 WICOMICO CO. DEPT. RECREATION & PARKS	10,860	0	9,474	0
123 FRUITLAND, CITY OF	2,641	6,500	3,840	9,946
124 WICOMICO CO. SUPR OF ELECTIONS	1,884	915	2,740	1,401
125 WORCHESTER CO. BOARD OF EDUCATION	48,115	24,952	38,824	38,183
126 WORCHESTER CO. COMMISSION	144,307	62,403	116,904	94,526
127 WORCHESTER CO. ROADS BOARD	147,003	7,014	73,548	10,734
128 WORCHESTER CO. LIQUOR BOARD	39,644	8,695	29,383	13,306
129 POCOMOKE CITY	51,063	12,086	39,823	18,240
130 SNOW HILL, TOWN OF	31,850	14,423	9,862	21,055
131 BERLIN, TOWN OF	29,472	15,359	22,148	23,120
132 WORCHESTER CO. BOARD OF ELECTIONS	2,573	0	3,741	0
133 NORTHEAST MD. WASTE DISPOSAL AUTH.	6,045	8,075	7,902	12,148
TOTALS:	\$30,632,515	\$7,667,249	\$21,578,359	\$11,260,399

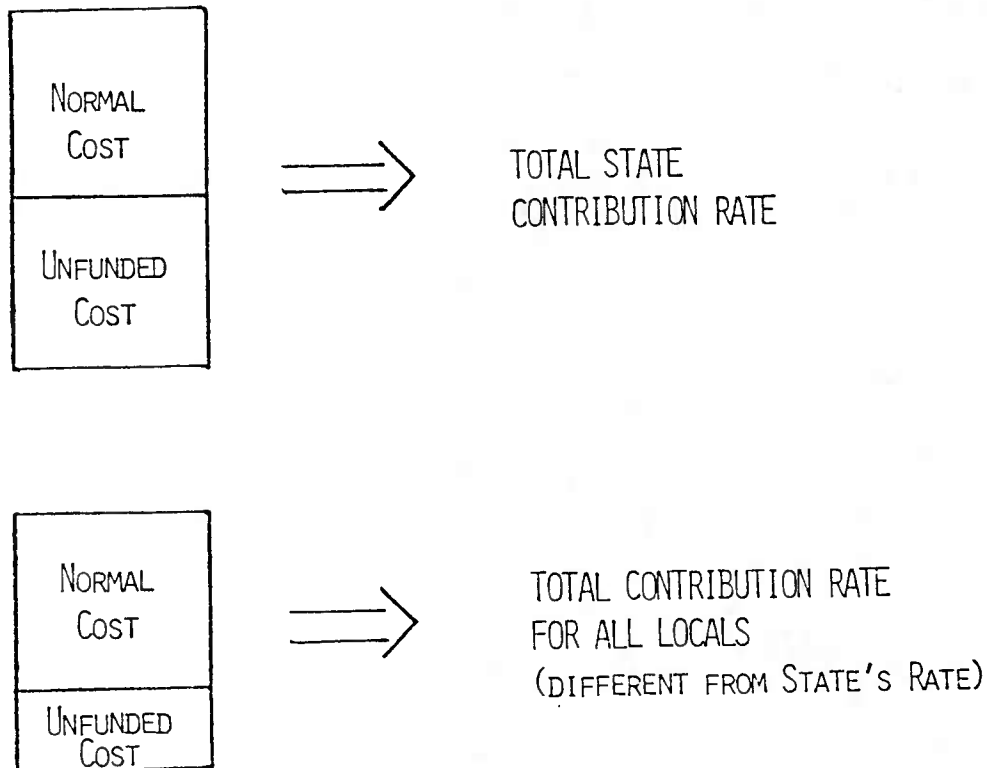
Alternative #2: Two Cost Approach (State Cost and Locals Combined Cost)

A. Description

This alternative results in a complete separation between the State and the Local Units of their participation in both the Employees' Retirement System and the Employees' Pension System. The Local Units will be combined and their costs determined collectively (i.e., one contribution rate for all Local Units).

On-going plan administration and investment experience will be shared equally by the State and the Local Units, with separate accounting prospectively of assets, liabilities, and annual costs.

GRAPHIC ILLUSTRATION



B. Specifics

1. Separate Accrued Liability Determinations:

a. 1980 Allocations

- Cancelled.

b. New Individual Allocations

- None.

2. Funding of Unfunded Accrued Liability Amounts:

Amortized jointly (Locals combined) as a level % of payroll. (See Appendix II)

3. Prior Contributions:

Adjustments made for over- or under-payments since 1980, as described in Appendix I.

4. Salary Abuses:

Remedial Procedures applied as described in Appendix II.

5. Costs For New Local Units:

Same rate as current contributors.

6. Withdrawing Local Units:

Assess withdrawal charges as described in Appendix III.

7. Transfers to the Pension System:

Costs adjusted as described in Appendix IV.

C. Evaluation

1. Administrative Concerns:

This alternative will eliminate the current administrative procedures used to collect payments and account for the balances of the initial accrued liability allocations of 1980. However, added administration will result with respect to the separate accounting for assets, liabilities, and future costs called for by this method. Overall, we suspect this alternative will be less difficult to administer as the current financing approach.

2. Complexity:

This alternative should be less difficult to understand and communicate than the present method.

3. Cost Fluctuation:

This method will produce greater cost fluctuations due to experience gains and losses than the Single Cost Approach (Alternative #1), and about the same potential for cost fluctuation as the current financing approach. Experience gains and losses, except for investment experience, will be determined separately for the State and the Local Units combined.

4. Equity in Cost Allocation:

The State and the Local Units combined will generally be funding their own true costs under this approach, with little or no cost sharing between the two groups. With respect to individual Local Units, there will be cost sharing, and therefore, cost subsidization among Local Units.

D. Conclusion

This approach is the same as the method currently employed to allocate total system costs with two exceptions.

1. The technical flaws and inequities which exist in the current method will be eliminated, and
2. No initial allocation of liabilities to individual Local Unit contributors (such as the one made in 1980) is needed.

The problems associated with cost sharing and potential pay increase abuses will exist for individual Local Units. Overall, however, we believe this approach is more acceptable than current procedures.

E. Cost Analysis

On the following pages we present a detailed comparison of estimated 1984 costs for each Local Unit contributing to the Employees' Retirement and Pension Systems of the State of Maryland.

TABLE II - 2
1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #2

LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #2: TWO COST SYSTEM	
	Retirement	Pension	Retirement	Pension
1 BALTIMORE CO SUPR OF ELECTIONS	\$21,846	\$7,488	\$29,682	\$11,549
2 MARYLAND FOOD CENTER AUTHORITY	16,652	10,752	15,295	14,532
3 REGIONAL PLANNING COUNCIL	105,206	2,939	0	0
4 METROPOLITAN TRANSIT AUTHORITY	448,544	215,692	373,713	318,373
5 ALLEGANY COUNTY BOARD OF EDUCATION	480,244	54,519	283,932	84,088
6 ALLEGANY COUNTY COMMUNITY COLLEGE	19,639	9,871	14,980	12,608
7 ALLEGANY COUNTY LIBRARY	1,596	1,460	789	2,251
8 ALLEGANY COUNTY COMMISSION	509,025	86,685	328,944	133,701
9 ALLEGANY COUNTY BOARD OF LICENSE COMM	946	842	403	1,166
10 ALLEGANY COUNTY SANITARY DISTRICT	46,716	3,086	43,588	4,582
11 CUMBERLAND, CITY	738,329	58,240	353,700	89,828
12 REGIONAL EDUC SERVICES OF APPALACHIA	21,456	9,264	11,711	14,031
13 HEALTH SYSTEMS AGENCY-WESTERN MARYLAND	15,230	7,511	13,345	11,585
14 ALLEGANY COUNTY TRANSIT AUTHORITY	17,539	5,657	15,349	8,023
15 CUMBERLAND CITY POLICE DEPARTMENT	148,548	23,291	76,957	24,061
16 CRESAPTOWN CIVIC IMPROVEMENT ASSN	0	1,145	0	719
17 ANNE ARUNDEL CO. BOARD OF EDUCATION	1,207,366	418,377	839,661	635,601
18 ANNE ARUNDEL CO. COMMUNITY COLLEGE	65,304	28,780	66,203	44,194
19 ANNE ARUNDEL CO. GOVERNMENT	607,666	2,431	255,263	3,749
20 CITY OF ANNAPOLIS	279,562	115,488	177,559	178,126
21 CHESAPEAKE BAY COMMISSION	6,533	1,173	8,876	1,809
22 ANNE ARUNDEL CO. BOARD OF ELECTIONS	10,297	1,273	13,990	1,963
23 MD. HEALTH & HIGHER EDUC.FAC. AUTH.	6,820	434	9,267	669
24 LEXINGTON MARKET AUTHORITY	26,033	13,785	10,471	14,201
25 BALTIMORE CITY BOARD OF ELECTIONS	33,640	2,682	45,706	4,137
26 CALVERT CO. BOARD OF EDUCATION	134,946	57,563	104,221	83,601
27 CALVERT CO. COMMISSION	323,868	109,386	307,911	159,055
28 CAROLINE CO. BOARD OF EDUCATION	102,155	23,161	62,689	33,020
29 CAROLINE CO. ROADS BOARD	25,472	0	3,176	0
30 CAROLINE CO. BOARD OF ELECTIONS	1,342	319	1,823	492
31 CARROLL CO. BOARD OF EDUCATION	286,702	54,722	233,418	84,402
32 CARROLL CO. ED. OF EDUCATION CAFETERIA	129,886	4,252	97,755	6,559
33 CARROLL CO. COMMISSION	602,126	158,612	456,143	244,639
34 WESTMINSTER, CITY OF	119,713	18,722	86,184	28,876
35 MANCHESTER, TOWN OF	12,797	1,765	13,192	2,723
36 CARROLL CO. BOARD OF ELECTIONS	2,353	0	3,197	0
37 CECIL CO. BOARD OF EDUCATION	225,453	60,684	189,642	93,597
38 CECIL CO. COMMISSION	179,033	76,428	105,870	117,093
39 ELKTON, TOWN OF	55,688	26,484	35,182	38,389
40 CECIL CO. SUPR OF ELECTIONS	1,922	337	2,611	520

TABLE II - 2
1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #2

LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #2: TWO COST SYSTEM	
	Retirement	Pension	Retirement	Pension
41 CHARLES CO. COMMUNITY COLLEGE	43,041	12,305	32,880	16,638
42 CHARLES CO. SUPR OF ELECTIONS	4,178	548	5,676	845
43 DORCHESTER CO. BOARD OF EDUCATION	114,311	21,679	74,547	29,898
44 DORCHESTER CO. COMMISSION	129,010	22,640	98,786	34,592
45 DORCHESTER CO. ROADS BOARD	116,672	16,080	75,629	24,802
46 CAMBRIDGE, CITY OF	165,428	49,927	82,576	77,005
47 HOUSING AUTHORITY OF CAMBRIDGE	8,744	3,619	6,312	5,051
48 HURLOCK, TOWN OF	0	8,967	0	12,036
49 DORCHESTER CO. SUPR OF ELECTIONS	3,325	0	4,518	0
50 FREDERICK CO. BOARD OF EDUCATION	662,674	108,108	499,336	164,477
51 FREDERICK CO. COMMISSION	823,562	334,053	615,676	495,953
52 BRUNSWICK, TOWN OF	34,485	14,533	16,738	22,314
53 WALKERSVILLE, TOWN OF	10,720	1,507	8,030	2,260
54 MIDDLETOWN, TOWN OF	0	2,521	0	3,445
55 FREDERICK CO. SUPR OF ELECTIONS	1,943	515	2,640	794
56 GARRETT CO. BOARD OF EDUCATION	61,208	14,274	41,561	21,923
57 GARRETT CO. BOARD OF EDUC.-CAFETERIA	50,475	7,823	30,583	11,234
58 GARRETT CO. COMMISSION	103,171	22,376	40,235	33,988
59 GARRETT CO. ROADS BOARD	218,840	52,141	111,231	76,356
60 GARRETT CO. LIQUOR BOARD	4,013	2,754	0	4,055
61 GARRETT CO. SUPR. OF ELECTIONS	3,096	360	4,206	556
62 HARFORD CO. BOARD OF EDUCATION	590,132	188,997	478,514	289,090
63 HARFORD CO. COMMUNITY COLLEGE	25,624	10,613	20,615	16,201
64 HARFORD CO. GOVERNMENT	1,450,922	278,943	1,045,380	417,932
65 HARFORD CO. LIQUOR BOARD	10,393	301	0	464
66 HARFORD CO. SUPR OF ELECTIONS	3,735	1,125	5,075	1,734
67 HOWARD CO. BOARD OF EDUCATION	439,679	179,969	384,818	271,655
68 HOWARD COMMUNITY COLLEGE	13,405	11,904	13,078	16,948
69 HOWARD CO. GOVERNMENT	2,037,072	808,776	1,501,483	1,115,426
70 HOWARD CO. SUPR OF ELECTIONS	5,406	507	7,345	782
71 KENT CO. SUPR OF ELECTIONS	852	305	1,157	470
72 MONTGOMERY CO. BOARD OF EDUCATION	130,515	7,194	48,710	11,096
73 MONTGOMERY COLLEGE	180,154	135,048	153,483	174,926
74 MONTGOMERY CO. PUBLIC LIBRARY	3,234	0	0	0
75 MONTGOMERY CO. GOVERNMENT	409,154	33,421	234,519	51,341
76 GAITHERSBURG, TOWN OF	4,595	0	0	0
77 MD NATIONAL CAPITAL PARK & PLANN COMM	108,821	4,035	27,889	5,753
78 INTERSTATE COMM ON POTOMAC RR BASIN	4,499	0	0	0
79 ROCKVILLE, CITY OF	54,023	0	18,503	0
80 TAKOMA PARK, CITY OF	245,798	45,859	142,535	70,679

TABLE II - 2
1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #2

LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #2: TWO COST SYSTEM	
	Retirement	Pension	Retirement	Pension
81 BETHESDA FIRE DEPT.	2,098	0	0	0
82 CHEVY CHASE FIRE DEPT.	4,208	0	0	0
83 PRINCE GEORGES CO. BOARD OF EDUCATION	5,451,846	951,028	3,534,396	1,449,192
84 PRINCE GEORGES CO. COMMUNITY COLLEGE	94,452	40,735	63,188	60,713
85 PRINCE GEORGES CO. MEMORIAL LIBRARY	58,605	24,182	45,835	37,297
86 PRINCE GEORGES CO. GOVERNMENT	4,880,808	1,590,241	3,074,997	2,319,208
87 GREENBELT, CITY OF	260,662	35,871	166,900	54,767
88 HYATTSVILLE, CITY OF	151,426	47,566	75,791	73,030
89 MOUNT RAINIER, CITY OF	29,109	14,957	15,810	22,790
90 WASHINGTON SUBURBAN SANITARY COMM	347,078	1,504	129,338	2,319
91 NEW CARROLLTON, CITY OF	53,230	18,183	43,915	27,257
92 UPPER MARLBORO, TOWN OF	6,164	0	4,642	0
93 CHEVERLY, TOWN OF	42,029	15,596	30,043	19,902
94 PRINCE GEORGES CO. CROSSING GUARDS	49,602	16,533	28,809	25,499
95 QUEEN ANNE CO. BOARD OF EDUCATION	95,451	19,220	70,691	29,644
96 QUEEN ANNE CO. COMMISSION	112,918	33,116	72,289	50,287
97 QUEEN ANNE CO. ROADS BOARD	97,880	17,919	56,011	27,638
98 QUEEN ANNE CO. SUPR OF ELECTIONS	1,892	0	2,571	0
99 ST. MARY'S CO. BOARD OF EDUCATION	236,822	77,628	166,285	115,131
100 ST. MARY'S CO. COMMISSION	289,736	69,776	248,839	102,679
101 ST. MARY'S CO. NURSING HOME	68,092	17,259	45,941	26,620
102 ST. MARY'S CO. SUPR OF ELECTIONS	1,922	914	2,611	1,409
103 SOMERSET CO. BOARD OF EDUCATION	43,877	14,019	40,045	21,623
104 SOMERSET CO. COMMISSION	73,947	482	42,131	576
105 SOMERSET CO. SANITARY DISTRICT	8,942	1,502	8,998	2,316
106 SOMERSET CO. SUPR OF ELECTIONS	1,752	0	2,381	0
107 TALBOT CO. BOARD OF EDUCATION	86,020	17,829	38,244	26,583
108 TALBOT CO. COUNCIL	49,240	33,251	39,526	50,104
109 TALBOT CO. SUPR OF ELECTIONS	1,740	0	2,364	0
110 WASHINGTON CO. BOARD OF EDUCATION	625,187	102,253	423,003	157,712
111 HAGERSTOWN JR. COLLEGE	13,033	6,355	8,667	9,802
112 WASHINGTON CO. LIBRARY	14,076	992	10,219	1,530
113 WASHINGTON CO. COMMISSION	34,482	786	6,520	1,100
114 WASHINGTON CO. ROADS BOARD	9,889	0	5,077	0
115 WASHINGTON CO. LICENSE COMMISSIONERS	311	0	302	0
116 HAGERSTOWN, CITY OF	993,424	177,790	465,052	274,218
117 WASHINGTON CO. SANITARY DISTRICT	2,442	0	2,254	0
118 WASHINGTON CO. SUPR OF ELECTIONS	5,506	482	7,481	743
119 WOR-WIC TECH COMMUNITY COLLEGE	0	378	0	583
120 WICOMICO COUNTY ROADS BOARD	4,621	0	0	0

TABLE II - 2
1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #2

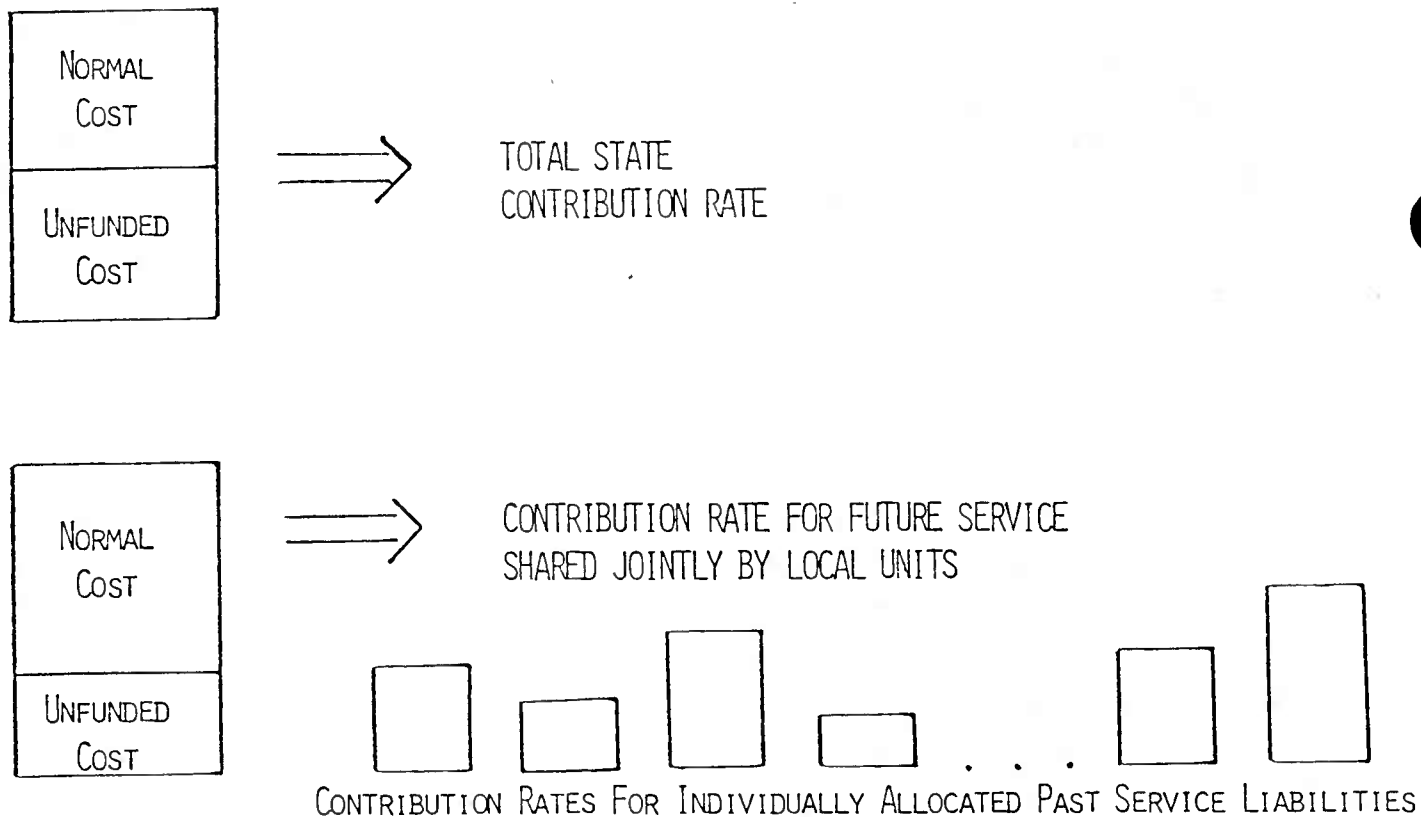
LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #2: TWO COST SYSTEM	
	Retirement	Pension	Retirement	Pension
121 SALISBURY, CITY OF	497,439	79,452	318,136	121,402
122 WICOMICO CO. DEPT. RECREATION & PARKS	10,860	0	8,852	0
123 FRUITLAND, CITY OF	2,641	6,500	3,588	10,025
124 WICOMICO CO. SUPR OF ELECTIONS	1,884	915	2,560	1,412
125 WORCHESTER CO. BOARD OF EDUCATION	48,115	24,952	36,273	38,485
126 WORCHESTER CO. COMMISSION	144,307	62,403	109,223	95,273
127 WORCHESTER CO. ROADS BOARD	147,003	7,014	68,716	10,819
128 WORCHESTER CO. LIQUOR BOARD	39,644	8,695	27,453	13,411
129 POCOMOKE CITY	51,063	12,086	37,206	18,385
130 SNOW HILL, TOWN OF	31,850	14,423	9,214	21,222
131 BERLIN, TOWN OF	29,472	15,359	20,693	23,303
132 WORCHESTER CO. BOARD OF ELECTIONS	2,573	0	3,495	0
133 NORTHEAST MD. WASTE DISPOSAL AUTH.	6,045	8,075	7,383	12,244
TOTALS:	\$30,632,515	\$7,667,249	\$20,160,627	\$11,349,485

Alternative #3: Current Approach Modified (State and Local Units Combined for Future Service Costs; State and Local Units Costs Individually Determined for Past Service)

A. Description

This cost allocation approach is related to the current approach used by the Systems, with modifications to correct technical flaws and inequities. This approach ultimately will be identical to Alternative #2 (Two Costs: State and Locals Combined). Initially, however, an unfunded accrued liability determination will be made for each separate Local Unit. Once these amounts are amortized, this allocation approach will be the same as Alternative #2.

GRAPHIC ILLUSTRATION



B. Specifics

1. Separate Accrued Liability Determinations:

a. 1980 Allocations

- Cancelled.

b. New Individual Allocations

- Based on present value of benefits earned to date for Employees' Retirement System only. (See Appendix V)

2. Funding of Unfunded Accrued Liability Amounts:

- Projected liabilities amortized jointly (Locals combined) as a level % of payroll

- Individual liability allocation funded as a level dollar amount. (See Appendix V)

3. Prior Contributions:

Adjustments made for over- or under-payments since 1980 as described in Appendix I.

4. Salary Abuses:

Remedial procedures applied as described in Appendix II.

5. Costs For New Local Units:

- Same rate as current contributors for normal costs and actuarial liability.

- Individual liability for past service will be determined upon entry.

6. Withdrawing Local Units:

Assess withdrawal charges as described in Appendix III.

7. Transfers to the Pension System:

Costs adjusted as described in Appendix IV.

C. Evaluation

1. Administrative Concerns:

This alternative will require continuation of current administrative procedures used to collect payments of and account for the balances of the initial accrued liability allocations of 1980. Also, added administration will result with respect to the separate accounting for assets. Overall, we suspect this alternative will be similar in complexity and expense to the current financing approach.

2. Complexity:

This alternative should be slightly less difficult to understand and communicate due to the change in the basis used for determining initial accrued liabilities.

3. Cost Fluctuation:

This method will produce greater cost fluctuations due to experience gains and losses than the Single Cost Approach (Alternative #1), and about the same potential for cost fluctuation as the current financing approach. Experience gains and losses, except for investment experience, will be determined separately for the State and the Local Units combined.

4. Equity in Cost Allocation:

The State and the Local Units combined will generally be funding their own true costs under this approach, with little or no cost sharing between the two groups. With respect to individual Local Units, there will be cost sharing with respect to future service experience gains and losses, and therefore, some cost subsidization will exist among Local Units.

D. Conclusion

This approach is the same as the method currently employed to allocate total system costs with two exceptions.

1. The technical flaws and inequities which exist in the current method will be minimized, and
2. The initial allocation of liabilities to individual Local Unit contributors will be based upon benefits earned to date, without projection.

The problems associated with potential pay increase abuses will exist for individual Local Units, but the impact of the cost sharing element among Local Units is reduced. However, the complexities of allocating accrued liabilities and maintaining individual accrued liability accounts makes this approach questionable.

E. Cost Analysis

On the following pages we present a detailed comparison of estimated 1984 costs for each Local Unit contributing to the Employees' Retirement and Pension Systems of the State of Maryland.

TABLE II - 3

1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #3

LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #3: CURRENT APPROACH MODIFIED	
	Retirement	Pension	Retirement	Pension
1 BALTIMORE CO SUPR OF ELECTIONS	\$21,846	\$7,488	\$39,767	\$11,549
2 MARYLAND FOOD CENTER AUTHORITY	16,652	10,752	15,672	14,532
3 REGIONAL PLANNING COUNCIL	105,206	2,939	0	0
4 METROPOLITAN TRANSIT AUTHORITY	448,544	215,692	442,407	318,373
5 ALLEGANY COUNTY BOARD OF EDUCATION	480,244	54,519	373,638	84,088
6 ALLEGANY COUNTY COMMUNITY COLLEGE	19,639	9,871	17,384	12,608
7 ALLEGANY COUNTY LIBRARY	1,596	1,460	963	2,251
8 ALLEGANY COUNTY COMMISSION	509,025	86,685	428,337	133,701
9 ALLEGANY COUNTY BOARD OF LICENSE COMM	946	842	632	1,166
10 ALLEGANY COUNTY SANITARY DISTRICT	46,716	3,086	50,025	4,582
11 CUMBERLAND, CITY	738,329	58,240	518,712	89,828
12 REGIONAL EDUC SERVICES OF APPALACHIA	21,456	9,264	16,047	14,031
13 HEALTH SYSTEMS AGENCY-WESTERN MARYLAND	15,230	7,511	11,826	11,585
14 ALLEGANY COUNTY TRANSIT AUTHORITY	17,539	5,657	15,708	8,023
15 CUMBERLAND CITY POLICE DEPARTMENT	148,548	23,291	119,943	24,061
16 CRESAFTOWN CIVIC IMPROVEMENT ASSN	0	1,145	0	719
17 ANNE ARUNDEL CO. BOARD OF EDUCATION	1,207,366	418,377	997,540	635,601
18 ANNE ARUNDEL CO. COMMUNITY COLLEGE	65,304	28,780	75,144	44,194
19 ANNE ARUNDEL CO. GOVERNMENT	607,666	2,431	498,960	3,749
20 CITY OF ANNAPOLIS	279,562	115,488	244,749	178,126
21 CHESAPEAKE BAY COMMISSION	6,533	1,173	7,933	1,809
22 ANNE ARUNDEL CO. BOARD OF ELECTIONS	10,297	1,273	19,601	1,963
23 MD. HEALTH & HIGHER EDUC.FAC. AUTH.	6,820	434	8,479	669
24 LEXINGTON MARKET AUTHORITY	26,033	13,785	11,560	14,201
25 BALTIMORE CITY BOARD OF ELECTIONS	33,640	2,682	59,426	4,137
26 CALVERT CO. BOARD OF EDUCATION	134,946	57,563	121,999	83,601
27 CALVERT CO. COMMISSION	323,868	109,386	327,470	159,055
28 CAROLINE CO. BOARD OF EDUCATION	102,155	23,161	74,357	33,020
29 CAROLINE CO. ROADS BOARD	25,472	0	9,116	0
30 CAROLINE CO. BOARD OF ELECTIONS	1,342	319	2,220	492
31 CARROLL CO. BOARD OF EDUCATION	286,702	54,722	283,542	84,402
32 CARROLL CO. ED. OF EDUCATION CAFETERIA	129,886	4,252	129,514	6,559
33 CARROLL CO. COMMISSION	602,126	158,612	497,511	244,639
34 WESTMINSTER, CITY OF	119,713	18,722	105,426	28,876
35 MANCHESTER, TOWN OF	12,797	1,765	13,257	2,723
36 CARROLL CO. BOARD OF ELECTIONS	2,353	0	4,221	0
37 CECIL CO. BOARD OF EDUCATION	225,453	60,684	237,100	93,597
38 CECIL CO. COMMISSION	179,033	76,428	114,862	117,093
39 ELKTON, TOWN OF	55,688	26,484	48,123	38,389
40 CECIL CO. SUPR OF ELECTIONS	1,922	337	4,395	520

TABLE II - 3

1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #3

LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #3: CURRENT APPROACH MODIFIED	
	Retirement	Pension	Retirement	Pension
41 CHARLES CO. COMMUNITY COLLEGE	43,041	12,305	32,691	16,638
42 CHARLES CO. SUPR OF ELECTIONS	4,178	548	5,230	845
43 DORCHESTER CO. BOARD OF EDUCATION	114,311	21,679	102,996	29,898
44 DORCHESTER CO. COMMISSION	129,010	22,640	123,824	34,592
45 DORCHESTER CO. ROADS BOARD	116,672	16,080	90,406	24,802
46 CAMBRIDGE, CITY OF	165,428	49,927	115,301	77,005
47 HOUSING AUTHORITY OF CAMBRIDGE	8,744	3,619	7,290	5,051
48 HURLUCK, TOWN OF	0	8,967	0	12,036
49 DORCHESTER CO. SUPR OF ELECTIONS	3,325	0	4,328	0
50 FREDERICK CO. BOARD OF EDUCATION	662,674	108,108	583,271	164,477
51 FREDERICK CO. COMMISSION	823,562	334,053	697,791	495,953
52 BRUNSWICK, TOWN OF	34,485	14,533	23,458	22,314
53 WALKERSVILLE, TOWN OF	10,720	1,507	8,023	2,260
54 MIDDLETOWN, TOWN OF	0	2,521	0	3,445
55 FREDERICK CO. SUPR OF ELECTIONS	1,943	515	2,709	794
56 GARRETT CO. BOARD OF EDUCATION	61,208	14,274	54,844	21,923
57 GARRETT CO. BOARD OF EDUC.-CAFETERIA	50,475	7,823	43,727	11,234
58 GARRETT CO. COMMISSION	103,171	22,376	47,407	33,988
59 GARRETT CO. ROADS BOARD	218,840	52,141	148,271	76,356
60 GARRETT CO. LIQUOR BOARD	4,013	2,754	0	4,055
61 GARRETT CO. SUPR. OF ELECTIONS	3,096	360	3,643	556
62 HARFORD CO. BOARD OF EDUCATION	590,132	188,997	555,979	289,090
63 HARFORD CO. COMMUNITY COLLEGE	25,624	10,613	21,961	16,201
64 HARFORD CO. GOVERNMENT	1,450,922	278,943	1,287,904	417,932
65 HARFORD CO. LIQUOR BOARD	10,393	301	0	464
66 HARFORD CO. SUPR OF ELECTIONS	3,735	1,125	8,385	1,734
67 HOWARD CO. BOARD OF EDUCATION	439,679	179,969	425,966	271,655
68 HOWARD COMMUNITY COLLEGE	13,405	11,904	12,366	16,948
69 HOWARD CO. GOVERNMENT	2,037,072	808,776	1,743,107	1,115,426
70 HOWARD CO. SUPR OF ELECTIONS	5,406	507	8,427	782
71 KENT CO. SUPR OF ELECTIONS	852	305	1,743	470
72 MONTGOMERY CO. BOARD OF EDUCATION	130,515	7,194	88,268	11,096
73 MONTGOMERY COLLEGE	180,154	135,048	186,624	174,926
74 MONTGOMERY CO. PUBLIC LIBRARY	3,234	0	8,463	0
75 MONTGOMERY CO. GOVERNMENT	409,154	33,421	325,290	51,341
76 GAITHERSBURG, TOWN OF	4,595	0	0	0
77 MD NATIONAL CAPITAL PARK & PLANN COMM	108,821	4,035	46,362	5,753
78 INTERSTATE COMM ON POTOMAC RR BASIN	4,499	0	0	0
79 ROCKVILLE, CITY OF	54,023	0	35,214	0
80 TAKOMA PARK, CITY OF	245,798	45,859	173,723	70,679

TABLE II - 3
1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #3

LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #3: CURRENT APPROACH MODIFIED	
	Retirement	Pension	Retirement	Pension
81 EETHESDA FIRE DEPT.	2,098	0	0	0
82 CHEVY CHASE FIRE DEPT.	4,208	0	0	0
83 PRINCE GEORGES CO. BOARD OF EDUCATION	5,451,846	951,028	4,452,440	1,449,192
84 PRINCE GEORGES CO. COMMUNITY COLLEGE	94,452	40,735	80,352	60,713
85 PRINCE GEORGES CO. MEMORIAL LIBRARY	58,605	24,182	54,284	37,297
86 PRINCE GEORGES CO. GOVERNMENT	4,880,808	1,590,241	3,812,157	2,319,208
87 GREENFELT, CITY OF	260,662	35,871	210,464	54,767
88 HYATTSVILLE, CITY OF	151,426	47,566	100,497	73,030
89 MOUNT RAINIER, CITY OF	29,109	14,957	27,756	22,790
90 WASHINGTON SUBURBAN SANITARY COMM	347,078	1,504	238,375	2,319
91 NEW CARROLLTON, CITY OF	53,230	18,183	45,204	27,257
92 UPPER MARLBORO, TOWN OF	6,164	0	6,506	0
93 CHEVERLY, TOWN OF	42,029	15,596	33,308	19,902
94 PRINCE GEORGES CO. CROSSING GUARDS	49,602	16,533	37,439	25,499
95 QUEEN ANNE CO. BOARD OF EDUCATION	95,451	19,220	86,440	29,644
96 QUEEN ANNE CO. COMMISSION	112,918	33,116	96,979	50,287
97 QUEEN ANNE CO. ROADS BOARD	97,880	17,919	98,404	27,638
98 QUEEN ANNE CO. SUPR OF ELECTIONS	1,892	0	3,082	0
99 ST. MARY'S CO. BOARD OF EDUCATION	236,822	77,628	207,101	115,131
100 ST. MARY'S CO. COMMISSION	289,736	69,776	277,268	102,679
101 ST. MARY'S CO. NURSING HOME	68,092	17,259	56,218	26,620
102 ST. MARY'S CO. SUPR OF ELECTIONS	1,922	914	4,658	1,409
103 SOMERSET CO. BOARD OF EDUCATION	43,877	14,019	50,883	21,623
104 SOMERSET CO. COMMISSION	73,947	482	67,942	576
105 SOMERSET CO. SANITARY DISTRICT	8,942	1,502	9,119	2,316
106 SOMERSET CO. SUPR OF ELECTIONS	1,752	0	3,782	0
107 TALBOT CO. BOARD OF EDUCATION	86,020	17,829	51,754	26,583
108 TALBOT CO. COUNCIL	49,240	33,251	47,920	50,104
109 TALBOT CO. SUPR OF ELECTIONS	1,740	0	3,096	0
110 WASHINGTON CO. BOARD OF EDUCATION	625,187	102,253	533,280	157,712
111 HAGERSTOWN JR. COLLEGE	13,033	6,355	10,233	9,802
112 WASHINGTON CO. LIBRARY	14,076	992	11,543	1,530
113 WASHINGTON CO. COMMISSION	34,482	786	12,560	1,100
114 WASHINGTON CO. ROADS BOARD	9,889	0	12,238	0
115 WASHINGTON CO. LICENSE COMMISSIONERS	311	0	430	0
116 HAGERSTOWN, CITY OF	993,424	177,790	695,650	274,218
117 WASHINGTON CO. SANITARY DISTRICT	2,442	0	3,869	0
118 WASHINGTON CO. SUPR OF ELECTIONS	5,506	482	11,738	743
119 WOR-WIC TECH COMMUNITY COLLEGE	0	378	0	583
120 WICOMICO COUNTY ROADS BOARD	4,621	0	0	0

TABLE II - 3

1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #3

LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #3: CURRENT APPROACH MODIFIED	
	Retirement	Pension	Retirement	Pension
121 SALISBURY, CITY OF	497,439	79,452	433,511	121,402
122 WICOMICO CO. DEPT. RECREATION & PARKS	10,860	0	9,936	0
123 FRUITLAND, CITY OF	2,641	6,500	3,068	10,025
124 WICOMICO CO. SUPR OF ELECTIONS	1,884	915	2,837	1,412
125 WORCHESTER CO. BOARD OF EDUCATION	48,115	24,952	42,838	38,485
126 WORCHESTER CO. COMMISSION	144,307	62,403	129,386	95,273
127 WORCHESTER CO. ROADS BOARD	147,003	7,014	91,892	10,819
128 WORCHESTER CO. LIQUOR BOARD	39,644	8,695	35,388	13,411
129 POCOMOKE CITY	51,063	12,086	48,911	18,385
130 SNOW HILL, TOWN OF	31,850	14,423	9,651	21,222
131 BERLIN, TOWN OF	29,472	15,359	29,476	23,303
132 WORCHESTER CO. BOARD OF ELECTIONS	2,573	0	4,082	0
133 NORTHEAST MD. WASTE DISPOSAL AUTH.	6,045	8,075	6,105	12,244
TOTALS:	\$30,632,515	\$7,667,249	\$25,274,610	\$11,349,485

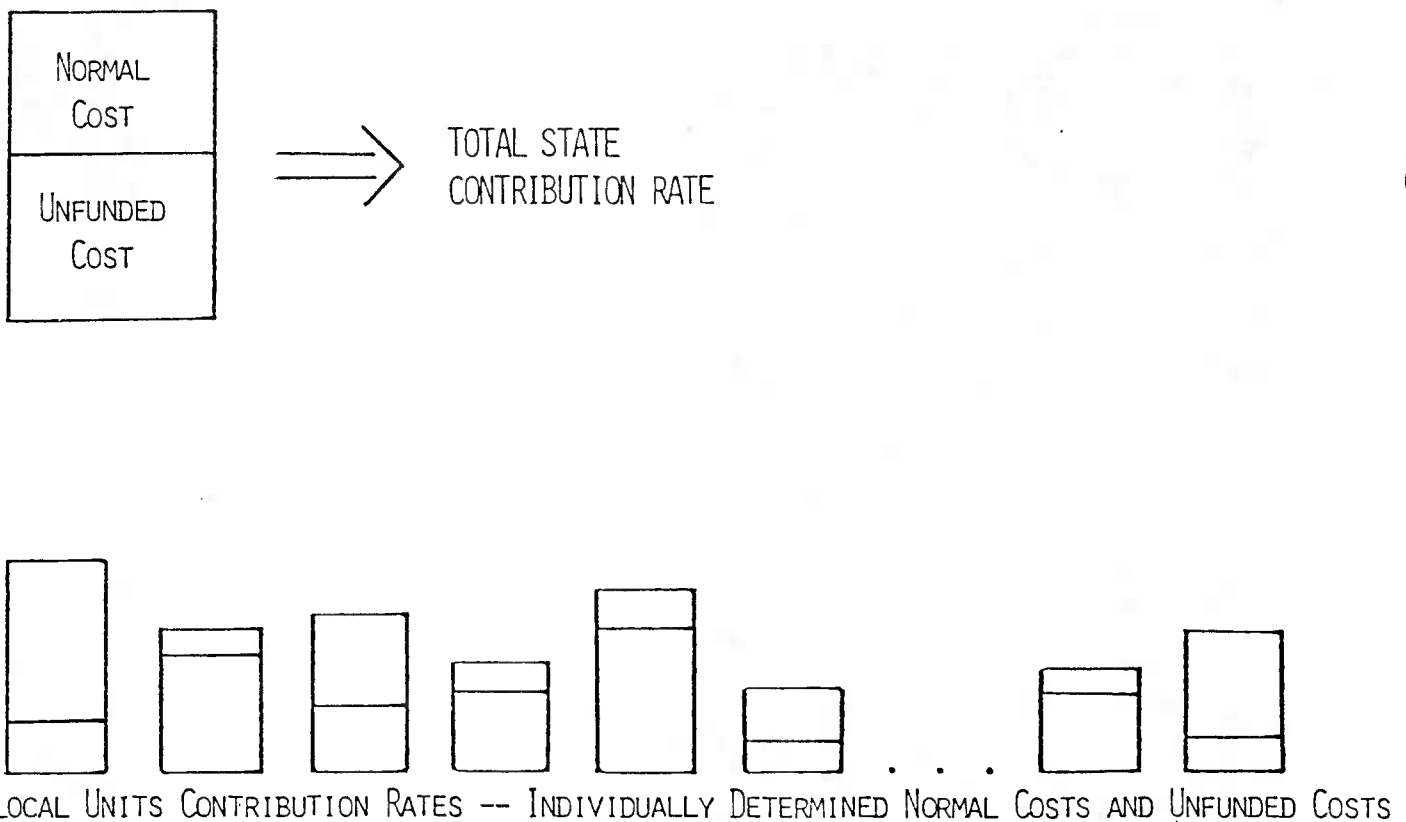
Alternative #4 Multiple Cost Approach (State Cost and Locals Units Costs Individually Determined)

A. Description

This alternative results in a complete separation among the State and the Local Units of their participation in both the Employees' Retirement System and the Employees' Pension System. Separate costs will be determined for each Local Unit (i.e., both the normal contribution and actuarial liability payment).

On-going plan administration and investment experience will be shared equally by the State and the Local Units, with separate accounting prospectively of assets, liabilities, and annual costs.

GRAPHIC ILLUSTRATION



1. Separate Accrued Liability Determinations:

a. 1980 Allocations

- Cancelled.

b. New Individual Allocations

- Calculated as of first valuation date following election of this approach, and based on projected liabilities. (See Appendix V)

2. Funding of Unfunded Accrued Liability Amounts:

Amortized by individual Unit (Locals combined) as a level dollar amount. (See Appendix V)

3. Prior Contributions:

Adjustments made for over- or under-payments since 1980 as described in Appendix I.

4. Salary Abuses:

Not applicable.

5. Costs For New Local Units:

Determined at date of entry.

6. Withdrawing Local Units:

Assess withdrawal charges on unfunded actuarial liability existing at date of withdrawal.

7. Transfers to the Pension System:

Costs adjusted as described in Appendix IV.

C. Evaluation

1. Administrative Concerns:

This alternative will require continuation of current administrative procedures used to collect payments and account for the balances of the initial accrued liability allocations of 1980. Additionally, account would have to be kept of payment of individual normal contributions, as well as accounting for assets, liabilities, and future costs of individual Local Units. This alternative would be the most complex and costly approach addressed here.

2. Complexity:

This alternative should not be difficult to understand and communicate; however, it would be considerably more complex to administer.

3. Cost Fluctuation:

This method will produce greater cost fluctuations due to experience gains and losses than any of the other approaches for the Local Units, and about the same potential for cost fluctuation for the State. Experience gains and losses, except for investment experience, will be determined separately for the State and for each Local Unit.

4. Equity in Cost Allocation:

The State and the Local Units will be individually funding their own true costs under this approach, with no cost sharing among any of the groups. No subsidization among groups will exist.

D. Conclusion

This approach is very different from the method currently employed to allocate total system costs.

1. The technical flaws and inequities which exist in the current method will be eliminated, and all member groups will be funding their own liabilities to the greatest possible extent.
2. The problems associated with cost sharing and the potential pay increase abuses will be eliminated for individual Local Units.
3. The cost and complexity of this approach with respect to administration would be significant.

E. Cost Analysis

On the following pages we present a detailed comparison of estimated 1984 costs for each Local Unit contribution to the Employees' Retirement and Pension Systems of the State of Maryland.

TABLE II - 4
1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #4

LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #4: INDIVIDUAL COST APPROACH	
	Retirement	Pension	Retirement	Pension
1 BALTIMORE CO SUPR OF ELECTIONS	\$21,846	\$7,488	\$60,464	\$10,590
2 MARYLAND FOOD CENTER AUTHORITY	16,652	10,752	20,526	12,925
3 REGIONAL PLANNING COUNCIL	105,206	2,939	0	0
4 METROPOLITAN TRANSIT AUTHORITY	448,544	215,692	500,346	312,853
5 ALLEGANY COUNTY BOARD OF EDUCATION	480,244	54,519	583,047	74,436
6 ALLEGANY COUNTY COMMUNITY COLLEGE	19,639	9,871	19,538	12,444
7 ALLEGANY COUNTY LIBRARY	1,596	1,460	2,201	1,824
8 ALLEGANY COUNTY COMMISSION	509,025	86,685	685,956	111,783
9 ALLEGANY COUNTY BOARD OF LICENSE COMM	946	842	2,256	1,107
10 ALLEGANY COUNTY SANITARY DISTRICT	46,716	3,086	54,700	4,325
11 CUMBERLAND, CITY	738,329	58,240	783,087	85,242
12 REGIONAL EDUC SERVICES OF APPALACHIA	21,456	9,264	16,461	11,257
13 HEALTH SYSTEMS AGENCY-WESTERN MARYLAND	15,230	7,511	13,243	9,477
14 ALLEGANY COUNTY TRANSIT AUTHORITY	17,539	5,657	19,824	6,281
15 CUMBERLAND CITY POLICE DEPARTMENT	148,548	23,291	300,133	45,067
16 CRESAPTOWN CIVIC IMPROVEMENT ASSN	0	1,145	0	2,978
17 ANNE ARUNDEL CO. BOARD OF EDUCATION	1,207,366	418,377	1,193,901	533,270
18 ANNE ARUNDEL CO. COMMUNITY COLLEGE	65,304	28,780	80,354	31,592
19 ANNE ARUNDEL CO. GOVERNMENT	607,666	2,431	773,533	5,301
20 CITY OF ANNAPOLIS	279,562	115,488	332,371	151,143
21 CHESAPEAKE BAY COMMISSION	6,533	1,173	7,506	1,794
22 ANNE ARUNDEL CO. BOARD OF ELECTIONS	10,297	1,273	36,440	1,670
23 MD. HEALTH & HIGHER EDUC.FAC. AUTH.	6,820	434	8,094	778
24 LEXINGTON MARKET AUTHORITY	26,033	13,785	22,399	14,954
25 BALTIMORE CITY BOARD OF ELECTIONS	33,640	2,682	72,006	3,781
26 CALVERT CO. BOARD OF EDUCATION	134,946	57,563	149,902	74,159
27 CALVERT CO. COMMISSION	323,868	109,386	358,877	130,112
28 CAROLINE CO. BOARD OF EDUCATION	102,155	23,161	116,152	27,663
29 CAROLINE CO. ROADS BOARD	25,472	0	34,066	69
30 CAROLINE CO. BOARD OF ELECTIONS	1,342	319	3,157	455
31 CARROLL CO. BOARD OF EDUCATION	286,702	54,722	385,589	67,922
32 CARROLL CO. BD. OF EDUCATION CAFETERIA	129,886	4,252	160,953	5,636
33 CARROLL CO. COMMISSION	602,126	158,612	565,332	171,941
34 WESTMINSTER, CITY OF	119,713	18,722	142,570	17,166
35 MANCHESTER, TOWN OF	12,797	1,765	13,705	1,265
36 CARROLL CO. BOARD OF ELECTIONS	2,353	0	5,613	0
37 CECIL CO. BOARD OF EDUCATION	225,453	60,684	292,154	76,276
38 CECIL CO. COMMISSION	179,033	76,428	149,176	80,884
39 ELKTON, TOWN OF	55,688	26,484	60,964	28,290
40 CECIL CO. SUPR OF ELECTIONS	1,922	337	4,409	421

TABLE II - 4

1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #4

LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #4: INDIVIDUAL COST APPROACH	
	Retirement	Pension	Retirement	Pension
41 CHARLES CO. COMMUNITY COLLEGE	43,041	12,305	42,114	15,443
42 CHARLES CO. SUPR OF ELECTIONS	4,178	548	4,990	717
43 DORCHESTER CO. BOARD OF EDUCATION	114,311	21,679	175,668	27,964
44 DORCHESTER CO. COMMISSION	129,010	22,640	167,460	25,531
45 DORCHESTER CO. ROADS BOARD	116,672	16,080	147,441	19,085
46 CAMERIDGE, CITY OF	165,428	49,927	183,115	57,130
47 HOUSING AUTHORITY OF CAMERIDGE	8,744	3,619	7,401	3,875
48 HURLOCK, TOWN OF	0	8,967	0	9,520
49 DORCHESTER CO. SUPR OF ELECTIONS	3,325	0	12,482	0
50 FREDERICK CO. BOARD OF EDUCATION	662,674	108,108	735,015	129,235
51 FREDERICK CO. COMMISSION	823,562	334,053	794,191	400,306
52 BRUNSWICK, TOWN OF	34,485	14,533	27,098	15,656
53 WALKERSVILLE, TOWN OF	10,720	1,507	9,964	1,592
54 MIDDLETOWN, TOWN OF	0	2,521	0	2,453
55 FREDERICK CO. SUPR OF ELECTIONS	1,943	515	9,509	836
56 GARRETT CO. BOARD OF EDUCATION	61,208	14,274	71,468	16,770
57 GARRETT CO. BOARD OF EDUC.-CAFETERIA	50,475	7,823	75,235	11,486
58 GARRETT CO. COMMISSION	103,171	22,376	63,881	28,323
59 GARRETT CO. ROADS BOARD	218,840	52,141	249,470	63,800
60 GARRETT CO. LIQUOR BOARD	4,013	2,754	294	2,851
61 GARRETT CO. SUPR. OF ELECTIONS	3,096	360	7,790	511
62 HARFORD CO. BOARD OF EDUCATION	590,132	188,997	649,707	210,966
63 HARFORD CO. COMMUNITY COLLEGE	25,624	10,613	27,057	14,789
64 HARFORD CO. GOVERNMENT	1,450,922	278,943	2,073,680	369,754
65 HARFORD CO. LIQUOR BOARD	10,393	301	17,394	199
66 HARFORD CO. SUPR OF ELECTIONS	3,735	1,125	9,082	1,959
67 HOWARD CO. BOARD OF EDUCATION	439,679	179,969	481,980	224,279
68 HOWARD COMMUNITY COLLEGE	13,405	11,904	10,609	12,056
69 HOWARD CO. GOVERNMENT	2,037,072	808,776	1,941,305	979,457
70 HOWARD CO. SUPR OF ELECTIONS	5,406	507	12,534	771
71 KENT CO. SUPR OF ELECTIONS	852	305	2,201	636
72 MONTGOMERY CO. BOARD OF EDUCATION	130,515	7,194	187,474	13,931
73 MONTGOMERY COLLEGE	180,154	135,048	308,944	174,536
74 MONTGOMERY CO. PUBLIC LIBRARY	3,234	0	13,374	0
75 MONTGOMERY CO. GOVERNMENT	409,154	33,421	446,548	37,410
76 GAITHERSBURG, TOWN OF	4,595	0	5,767	0
77 MD NATIONAL CAPITAL PARK & PLANN COMM	108,821	4,035	125,336	5,924
78 INTERSTATE COMM ON POTOMAC RR BASIN	4,499	0	0	0
79 ROCKVILLE, CITY OF	54,023	0	75,277	0
80 TAKOMA PARK, CITY OF	245,798	45,859	286,226	65,228

TABLE II - 4

1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #4

LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #4: INDIVIDUAL COST APPROACH	
	Retirement	Pension	Retirement	Pension
81 BETHESDA FIRE DEPT.	2,098	0	0	0
82 CHEVY CHASE FIRE DEPT.	4,208	0	0	0
83 PRINCE GEORGES CO. BOARD OF EDUCATION	5,451,846	951,028	5,743,058	1,224,233
84 PRINCE GEORGES CO. COMMUNITY COLLEGE	94,452	40,735	121,067	45,555
85 PRINCE GEORGES CO. MEMORIAL LIBRARY	58,605	24,182	66,427	32,943
86 PRINCE GEORGES CO. GOVERNMENT	4,880,808	1,590,241	5,110,223	2,079,419
87 GREENBELT, CITY OF	260,662	35,871	272,585	38,237
88 HYATTSVILLE, CITY OF	151,426	47,566	156,124	61,041
89 MOUNT RAINIER, CITY OF	29,109	14,957	31,588	14,054
90 WASHINGTON SUBURBAN SANITARY COMM	347,078	1,504	378,661	2,386
91 NEW CARROLLTON, CITY OF	53,230	18,183	49,470	15,158
92 UPPER MARLBORO, TOWN OF	6,164	0	8,319	0
93 CHEVERLY, TOWN OF	42,029	15,596	49,001	21,462
94 PRINCE GEORGES CO. CROSSING GUARDS	49,602	16,533	83,619	49,508
95 QUEEN ANNE CO. BOARD OF EDUCATION	95,451	19,220	120,730	23,242
96 QUEEN ANNE CO. COMMISSION	112,918	33,116	134,394	35,514
97 QUEEN ANNE CO. ROADS BOARD	97,880	17,919	139,780	20,739
98 QUEEN ANNE CO. SUPR OF ELECTIONS	1,892	0	4,086	0
99 ST. MARY'S CO. BOARD OF EDUCATION	236,822	77,628	269,174	90,522
100 ST. MARY'S CO. COMMISSION	289,736	69,776	288,548	89,985
101 ST. MARY'S CO. NURSING HOME	68,092	17,259	92,363	22,317
102 ST. MARY'S CO. SUPR OF ELECTIONS	1,922	914	6,242	1,418
103 SOMERSET CO. BOARD OF EDUCATION	43,877	14,019	73,440	18,251
104 SOMERSET CO. COMMISSION	73,947	482	116,307	18,259
105 SOMERSET CO. SANITARY DISTRICT	8,942	1,502	9,104	1,681
106 SOMERSET CO. SUPR OF ELECTIONS	1,752	0	5,968	0
107 TALBOT CO. BOARD OF EDUCATION	86,020	17,829	109,837	27,369
108 TALBOT CO. COUNCIL	49,240	33,251	83,371	39,280
109 TALBOT CO. SUPR OF ELECTIONS	1,740	0	3,867	0
110 WASHINGTON CO. BOARD OF EDUCATION	625,187	102,253	766,883	127,834
111 HAGERSTOWN JR. COLLEGE	13,033	6,355	18,772	7,148
112 WASHINGTON CO. LIBRARY	14,076	992	13,885	739
113 WASHINGTON CO. COMMISSION	34,482	786	36,155	1,747
114 WASHINGTON CO. ROADS BOARD	9,889	0	17,409	0
115 WASHINGTON CO. LICENSE COMMISSIONERS	311	0	386	0
116 HAGERSTOWN, CITY OF	993,424	177,790	1,074,172	226,833
117 WASHINGTON CO. SANITARY DISTRICT	2,442	0	22,901	0
118 WASHINGTON CO. SUPR OF ELECTIONS	5,506	482	16,691	745
119 WOR-WIC TECH COMMUNITY COLLEGE	0	378	0	336
120 WICOMICO COUNTY ROADS BOARD	4,621	0	6,606	0

TABLE II - 4

1984 COST ESTIMATES
CURRENT VS. ALTERNATIVE #4

LOCAL	ESTIMATED CURRENT CONTRIBUTION:		ALTERNATIVE #4: INDIVIDUAL COST APPROACH	
	Retirement	Pension	Retirement	Pension
121 SALISBURY, CITY OF	497,439	79,452	583,493	98,849
122 WICOMICO CO. DEPT. RECREATION & PARKS	10,860	0	19,187	0
123 FRUITLAND, CITY OF	2,641	6,500	2,733	7,409
124 WICOMICO CO. SUPR OF ELECTIONS	1,884	915	7,732	1,245
125 WORCHESTER CO. BOARD OF EDUCATION	48,115	24,952	60,574	33,860
126 WORCHESTER CO. COMMISSION	144,307	62,403	159,819	66,880
127 WORCHESTER CO. ROADS BOARD	147,003	7,014	152,634	8,256
128 WORCHESTER CO. LIQUOR BOARD	39,644	8,695	52,103	9,158
129 POCOMOKE CITY	51,063	12,086	56,206	12,978
130 SNOW HILL, TOWN OF	31,850	14,423	18,879	15,035
131 BERLIN, TOWN OF	29,472	15,359	35,822	15,931
132 WORCHESTER CO. BOARD OF ELECTIONS	2,573	0	5,587	0
133 NORTHEAST MD. WASTE DISPOSAL AUTH.	6,045	8,075	4,274	11,529
TOTALS:	\$30,632,515	\$7,667,249	\$34,150,343	\$9,693,194

ADJUSTMENTS TO FUTURE COSTS
DUE TO PAST CONTRIBUTIONSA. Background

Unless adjustments are made to future contributions under each alternative cost allocation approach described in this report, inequities among members will result due to the pattern of past contributions. System contributors that elected to accelerate the funding of, or to fully fund, the accrued liability assessment of 1980 will be penalized for having paid "too much". Conversely, those contributors that elected to defer the required payments toward the 1980 accrued liability amounts will be rewarded for having done so. To eliminate this inequity, adjustments should be made to future on-going costs for each contributor, reflecting past contributions made to the System by individual contributors. In this section we present one approach to correcting this problem.

B. Cost Adjustment Approach

1. The on-going funding costs developed under each of the four alternative cost allocation approaches will be determined using System assets that would have resulted had each individual System contributor funded its 1980 accrued liability assessment at the same rate.
2. The difference between actual System assets and the adjusted assets described in Step 1. above represents the accumulated over payments and under-payments since 1980. This difference will be determined and fixed for each contributor as of June 30, 1984.
3. The amount determined for each contributor in Step 2. above will be amortized over a relatively short period (say, five years) with annual payments increasing by 5% each year during the period.
4. The end result will be a temporary positive or negative adjustment to the contribution called for under each of the four alternative cost allocation approaches.

C. Cost Adjustment Approach Calculation

The following listing presents the net accumulated over-payment or under-payment for each Local Unit from June 30, 1980 through June 30, 1983 based on the approach described in Part B. above. The listing also shows the annual contribution adjustment that would occur during the following five years. Please note that the contribution adjustments in the following listing have not been reflected in any cost results shown earlier in this report.

We do not recommend that these figures be used in determining actual future contributions until the relatively minor adjustment is made for contributions through June 30, 1984. These adjustments can be made in conjunction with our June 30, 1984 valuation of the Systems.

EMPLOYEES RETIREMENT SYSTEM

LOCAL	INITIAL ACCRUED LIABILITY	ACTUAL ACCRUED LIABILITY 6/30/83	BALANCE OF 6/30/83 LIABILITY IF PAID FOR AS LEVEL % OF PAY	DIFFERENCE IN ACCRUED LIABILITIES BETWEEN ACTUAL AND LEVEL % OF PAY REPAYMENTS	ANNUAL ADJUSTMENT TO FUTURE PAYMENTS UNDER ALTERNATIVE COST APPROACHES+
1 BALTO CO SUPR OF ELECTIONS	\$0	\$0	\$0	\$0	\$0
2 MARYLAND FOOD CENTER AUTHORITY	74,109	73,240	78,917	5,677	(1,190)
3 REGIONAL PLANNING COUNCIL	1,179,198	1,428,286	1,294,533	(133,753)	28,031
4 METROPOLITAN TRANSIT AUTHORITY	2,073,417	2,355,357	2,276,214	(79,143)	16,586
5 ALLEGANY COUNTY BOARD OF EDUCATION	3,039,051	3,682,816	3,336,295	(346,521)	72,623
6 ALLEGANY COUNTY COMMUNITY COLLEGE	95,467	116,951	104,804	(12,147)	2,546
7 ALLEGANY COUNTY LIBRARY	14,011	13,786	15,381	1,595	(334)
8 ALLEGANY COUNTY COMMISSION	3,683,097	3,623,786	4,043,334	419,548	(87,927)
9 ALLEGANY COUNTY BOARD OF LICENSE COMM	8,963	8,815	9,840	1,025	(215)
10 ALLEGANY COUNTY SANITARY DISTRICT	201,931	198,683	221,682	22,999	(4,820)
11 CUMBERLAND, CITY	5,350,205	6,489,479	5,873,499	(615,980)	129,095
12 REGIONAL EDUC SERVICES OF APPALACHIA	164,645	174,273	180,749	6,476	(1,357)
13 HEALTH SYSTEMS AGENCY-WESTERN MARYLAND	81,573	73,429	89,552	16,123	(3,379)
14 ALLEGANY COUNTY TRANSIT AUTHORITY	72,869	84,744	79,996	(4,748)	995
15 CUMBERLAND CITY POLICE DEPARTMENT	1,139,889	1,247,753	1,213,848	(33,905)	7,106
16 CRESAPTOWN CIVIC IMPROVEMENT ASSN	0	0	0	0	0
17 ANNE ARUNDEL CO. BOARD OF EDUCATION	6,604,440	8,001,474	7,250,408	(751,066)	157,406
18 ANNE ARUNDEL CO. COMMUNITY COLLEGE	183,730	225,075	201,700	(23,375)	4,899
19 ANNE ARUNDEL CO. GOVERNMENT	4,720,179	5,699,153	5,181,851	(517,302)	108,414
20 CITY OF ANNAPOLIS	2,054,285	2,021,201	2,255,211	234,010	(49,043)
21 CHESAPEAKE BAY COMMISSION	0	0	0	0	0
22 ANNE ARUNDEL CO. BOARD OF ELECTIONS	*	0	NA	NA	NA
23 MD. HEALTH & HIGHER EDUC.FAC. AUTH.	46,863	0	51,447	51,447	(10,782)
24 LEXINGTON MARKET AUTHORITY	245,775	248,804	269,814	21,010	(4,403)
25 BALTO CITY BOARD OF ELECTIONS	*	0	NA	NA	NA
26 CALVERT CO. BOARD OF EDUCATION	674,235	790,664	740,181	(50,483)	10,580
27 CALVERT CO. COMMISSION	1,341,856	1,320,241	1,473,100	152,859	(32,036)
28 CAROLINE CO. BOARD OF EDUCATION	712,643	760,485	782,345	21,860	(4,581)
29 CAROLINE CO. ROADS BOARD	260,258	314,076	285,713	(28,363)	5,944
30 CAROLINE CO. BOARD OF ELECTIONS	*	0	NA	NA	NA
31 CARROLL CO. BOARD OF EDUCATION	1,378,970	1,559,994	1,513,845	(46,149)	9,672
32 CARROLL CO. BOARD OF EDUCATION CAFETERIA	694,730	786,588	762,680	(23,908)	5,010
33 CARROLL CO. COMMISSION	3,191,560	3,616,768	3,503,721	(113,047)	23,692
34 WESTMINSTER, CITY OF	676,397	764,092	742,554	(21,538)	4,514
35 MANCHESTER, TOWN OF	42,602	41,922	46,769	4,847	(1,016)
36 CARROLL CO. BOARD OF ELECTIONS	*	0	NA	NA	NA
37 CECIL CO. BOARD OF EDUCATION	1,184,965	1,165,880	1,300,864	134,984	(28,289)
38 CECIL CO. COMMISSION	1,395,185	1,372,722	1,531,646	158,924	(33,307)
39 ELKTON, TOWN OF	411,111	404,489	451,321	46,832	(9,815)
40 CECIL CO. SUPR OF ELECTIONS	*	0	NA	NA	NA

* - Data Unavailable

NA - Not Applicable

+ - Adjustments to be made for five (5) years

EMPLOYEES RETIREMENT SYSTEM

LOCAL	INITIAL ACCRUED LIABILITY	ACTUAL ACCRUED LIABILITY BALANCE 6/30/83	BALANCE OF 6/30/83 LIABILITY IF PAID FOR AS LEVEL % OF PAY	DIFFERENCE IN ACCRUED LIABILITIES BETWEEN ACTUAL AND LEVEL % OF PAY REPAYMENTS	ANNUAL ADJUSTMENT TO FUTURE PAYMENTS UNDER ALTERNATIVE COST APPROACHES+
41 CHARLES CO. COMMUNITY COLLEGE	233,760	255,795	256,624	829	(174)
42 CHARLES CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
43 DORCHESTER CO. BOARD OF EDUCATION	761,818	807,024	836,330	29,306	(6,142)
44 DORCHESTER CO. COMMISSION	725,110	764,381	796,032	31,651	(6,633)
45 DORCHESTER CO. ROADS BOARD	786,190	828,274	863,086	34,812	(7,296)
46 CAMBRIDGE, CITY OF	1,348,258	1,420,770	1,480,129	59,359	(12,440)
47 HOUSING AUTHORITY OF CAMERIDGE	56,554	55,642	62,085	6,443	(1,350)
48 HURLOCK, TOWN OF	0	0	0	0	0
49 DORCHESTER CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
50 FREDERICK CO. BOARD OF EDUCATION	3,403,770	4,007,184	3,736,687	(270,497)	56,690
51 FREDERICK CO. COMMISSION	4,242,726	5,028,958	4,657,699	(371,259)	77,807
52 BRUNSWICK, TOWN OF	248,434	300,934	272,733	(28,201)	5,910
53 WALKERSVILLE, TOWN OF	57,481	65,297	63,103	(2,194)	460
54 MIDDLETOWN, TOWN OF	0	0	0	0	0
55 FREDERICK CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
56 GARRETT CO. BOARD OF EDUCATION	422,499	415,691	463,823	48,132	(10,087)
57 GARRETT CO. BOARD OF EDUC.-CAFETERIA	385,891	379,672	423,634	43,962	(9,213)
58 GARRETT CO. COMMISSION	953,541	998,638	1,046,805	48,167	(10,095)
59 GARRETT CO. ROADS BOARD	1,517,969	1,859,578	1,666,439	(193,139)	40,477
60 GARRETT CO. LIQUOR BOARD	55,372	54,475	60,788	6,313	(1,323)
61 GARRETT CO. SUPR. OF ELECTIONS	*	0	NA	NA	NA
62 HARFORD CO. BOARD OF EDUCATION	3,283,282	3,230,406	3,604,414	374,008	(78,383)
63 HARFORD CO. COMMUNITY COLLEGE	144,221	141,900	158,327	16,427	(3,443)
64 HARFORD CO. GOVERNMENT	7,614,857	9,252,485	8,359,652	(892,833)	187,116
65 HARFORD CO. LIQUOR BOARD	176,676	141,100	193,956	52,856	(11,077)
66 HARFORD CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
67 HOWARD CO. BOARD OF EDUCATION	1,733,856	2,124,048	1,903,441	(220,607)	46,234
68 HOWARD COMMUNITY COLLEGE	52,157	51,314	57,258	5,944	(1,246)
69 HOWARD CO. GOVERNMENT	10,447,274	12,652,747	11,469,103	(1,183,644)	248,064
70 HOWARD CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
71 KENT CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
72 MONTGOMERY CO. BOARD OF EDUCATION	1,306,210	1,285,179	1,433,968	148,789	(31,183)
73 MONTGOMERY COLLEGE	922,944	912,198	982,827	70,629	(14,802)
74 MONTGOMERY CO. PUBLIC LIBRARY	35,842	43,909	39,348	(4,561)	956
75 MONTGOMERY CO. GOVERNMENT	2,690,626	3,211,413	2,953,791	(257,622)	53,991
76 GAITTHERSBURG, TOWN OF	63,400	62,385	69,601	7,216	(1,512)
77 MD NATIONAL CAPITAL PARK & PLANN COMM	1,006,952	1,198,695	1,105,440	(93,255)	19,544
78 INTERSTATE COMM ON POTOMAC RR BASIN	62,068	61,073	68,139	7,066	(1,481)
79 ROCKVILLE, CITY OF	460,244	548,531	505,260	(43,271)	9,069
80 TAKOMA PARK, CITY OF	1,580,765	1,912,783	1,735,377	(177,406)	37,180

* - Data Unavailable

NA - Not Applicable

+ - Adjustments to be made for five (5) years

EMPLOYEES RETIREMENT SYSTEM

LOCAL	INITIAL ACCRUED LIABILITY	ACTUAL ACCRUED LIABILITY BALANCE 6/30/83	BALANCE OF 6/30/83 LIABILITY IF PAID FOR AS LEVEL % OF PAY	DIFFERENCE IN ACCRUED LIABILITIES BETWEEN ACTUAL AND LEVEL % OF PAY REPAYMENTS	ANNUAL ADJUSTMENT TO FUTURE PAYMENTS UNDER ALTERNATIVE COST APPROACHES+
81 BETHESDA FIRE DEPT.	28,946	28,477	31,777	3,300	(692)
82 CHEVY CHASE FIRE DEPT.	48,445	57,122	53,183	(3,939)	825
83 PRINCE GEORGES CO. BOARD OF EDUCATION	31,882,119	38,699,315	35,000,451	(3,698,864)	775,194
84 PRINCE GEORGES CO. COMMUNITY COLLEGE	661,578	650,919	726,286	75,367	(15,795)
85 PRINCE GEORGES CO. MEMORIAL LIBRARY	279,434	337,647	306,765	(30,882)	6,472
86 PRINCE GEORGES CO. GOVERNMENT	29,304,864	35,537,142	32,171,120	(3,366,022)	705,438
87 GREENBELT, CITY OF	1,539,984	1,871,112	1,690,607	(180,505)	37,830
88 HYATTSVILLE, CITY OF	1,071,573	1,298,468	1,176,382	(122,086)	25,586
89 MOUNT RAINIER, CITY OF	241,091	237,208	264,672	27,464	(5,756)
90 WASHINGTON SUBURBAN SANITARY COMM	3,475,603	3,419,632	3,815,545	395,913	(82,974)
91 NEW CARROLLTON, CITY OF	288,495	283,852	316,712	32,860	(6,887)
92 UPPER MARLBORO, TOWN OF	33,537	37,304	36,817	(487)	102
93 CHEVERLY, TOWN OF	274,821	270,394	301,701	31,307	(6,561)
94 PRINCE GEORGES CO. CROSSING GUARDS	388,881	385,548	409,726	24,178	(5,067)
95 QUEEN ANNE CO. BOARD OF EDUCATION	542,816	589,505	595,908	6,403	(1,342)
96 QUEEN ANNE CO. COMMISSION	733,218	810,684	804,933	(5,751)	1,205
97 QUEEN ANNE CO. ROADS BOARD	677,880	769,169	744,182	(24,987)	5,237
98 QUEEN ANNE CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
99 ST. MARY'S CO. BOARD OF EDUCATION	1,476,244	1,553,606	1,620,633	67,027	(14,047)
100 ST. MARY'S CO. COMMISSION	1,374,444	1,447,096	1,508,876	61,780	(12,948)
101 ST. MARY'S CO. NURSING HOME	473,014	465,392	519,279	53,887	(11,293)
102 ST. MARY'S CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
103 SOMERSET CO. BOARD OF EDUCATION	198,754	195,548	218,194	22,646	(4,746)
104 SOMERSET CO. COMMISSION	592,476	582,933	650,425	67,492	(14,145)
105 SOMERSET CO. SANITARY DISTRICT	27,053	31,485	29,699	(1,786)	374
106 SOMERSET CO SUPR OF ELECTIONS	*	0	NA	NA	NA
107 TALBOT CO. BOARD OF EDUCATION	718,641	785,674	788,930	3,256	(682)
108 TALBOT CO. COUNCIL	240,845	273,542	264,402	(9,140)	1,916
109 TALBOT CO BOARD OF ELECTIONS	*	0	NA	NA	NA
110 WASHINGTON CO. BOARD OF EDUCATION	4,042,655	4,260,984	4,438,060	177,076	(37,111)
111 HAGERSTOWN JR. COLLEGE	91,819	90,337	100,800	10,463	(2,193)
112 WASHINGTON CO. LIBRARY	90,444	88,986	99,290	10,304	(2,160)
113 WASHINGTON CO. COMMISSION	409,571	402,981	449,630	46,649	(9,777)
114 WASHINGTON CO. ROADS BOARD	84,899	83,529	93,203	9,674	(2,027)
115 WASHINGTON CO. LICENSE COMMISSIONERS	1,229	1,207	1,349	142	(30)
116 HAGERSTOWN, CITY OF	7,299,740	8,840,043	8,013,714	(826,329)	173,179
117 WASHINGTON CO. SANITARY DISTRICT	10,808	10,638	11,865	1,227	(257)
118 WASHINGTON CO SUPR OF ELECTIONS	*	0	NA	NA	NA
119 WOR-WIC TECH COMMUNITY COLLEGE	0	0	0	0	0
120 WICOMICO COUNTY ROADS BOARD	63,765	62,739	70,002	7,263	(1,522)

* - Data Unavailable

NA - Not Applicable

+ - Adjustments to be made for five (5) years

EMPLOYEES RETIREMENT SYSTEM

LOCAL	INITIAL ACCRUED LIABILITY	ACTUAL ACCRUED LIABILITY BALANCE 6/30/83	BALANCE OF 6/30/83 LIABILITY IF PAID FOR AS LEVEL % OF PAY	DIFFERENCE IN ACCRUED LIABILITIES BETWEEN ACTUAL AND LEVEL % OF PAY REPAYMENTS	ANNUAL ADJUSTMENT TO FUTURE PAYMENTS UNDER ALTERNATIVE COST APPROACHES+
121 SALISBURY, CITY OF	3,389,382	3,574,479	3,720,891	146,412	(30,685)
122 WICOMICO CO. DEPT. RECREATION & PARKS	59,955	58,987	65,819	6,832	(1,432)
123 FRUITLAND, CITY OF	6,094	0	6,690	6,690	(1,402)
124 WICOMICO CO SUPR OF ELECTIONS	*	0	NA	NA	NA
125 WORCHESTER CO. BOARD OF EDUCATION	237,362	290,778	260,578	(30,200)	6,329
126 WORCHESTER CO. COMMISSION	710,791	867,775	780,312	(87,463)	18,330
127 WORCHESTER CO. ROADS BOARD	1,082,990	1,309,123	1,188,915	(120,208)	25,193
128 WORCHESTER CO. LIQUOR BOARD	268,221	263,901	294,455	30,554	(6,403)
129 POCOMOKE CITY	292,633	321,472	321,255	(217)	45
130 SNOW HILL, TOWN OF	164,963	340,330	181,098	(159,232)	33,371
131 BERLIN, TOWN OF	196,745	193,345	215,988	22,643	(4,745)
132 WORCHESTER CO BOARD OF ELECTIONS	*	0	NA	NA	NA
133 NORTHEAST MD. WASTE DISPOSAL AUTHORITY	0	8,291	0	(8,291)	1,738

* - Data Unavailable

NA - Not Applicable

+ - Adjustments to be made for five (5) years

EMPLOYEES PENSION SYSTEM

	INITIAL ACCRUED LIABILITY	ACTUAL ACCURED LIABILITY BALANCE 6/30/83	BALANCE OF 6/30/83 LIABILITY IF PAID FOR AS LEVEL % OF PAY	DIFFERENCE IN ACCRUED LIABILITIES BETWEEN ACTUAL AND LEVEL % OF PAY REPAYMENTS	ANNUAL ADJUSTMENTS TO FUTURE PAYMENTS UNDER ALTERNATIVE COST APPROACHES+
LOCAL					
1 BALTIMORE CO SUPR OF ELECTIONS	\$0	\$0	\$0	\$0	\$0
2 MARYLAND FOOD CENTER AUTHORITY	18,280	18,061	19,466	1,405	(294)
3 REGIONAL PLANNING COUNCIL	40,560	39,902	44,527	4,625	(969)
4 METROPOLITAN TRANSIT AUTHORITY	128,035	125,916	140,558	14,642	(3,069)
5 ALLEGANY COUNTY BOARD OF EDUCATION	0	0	0	0	0
6 ALLEGANY COUNTY COMMUNITY COLLEGE	18,796	23,026	20,634	(2,392)	501
7 ALLEGANY COUNTY LIBRARY	0	0	0	0	0
8 ALLEGANY COUNTY COMMISSION	0	0	0	0	0
9 ALLEGANY COUNTY BOARD OF LICENSE COMM	1,187	1,167	1,303	136	(29)
10 ALLEGANY COUNTY SANITARY DISTRICT	1,582	1,561	1,737	176	(37)
11 CUMBERLAND, CITY	0	0	0	0	0
12 REGIONAL EDUC SERVICES OF APPALACHIA	2,309	2,269	2,535	266	(56)
13 HEALTH SYSTEMS AGENCY-WESTERN MARYLAND	2,780	0	3,052	3,052	(640)
14 ALLEGANY COUNTY TRANSIT AUTHORITY	6,289	6,191	6,904	713	(149)
15 CUMBERLAND CITY POLICE DEPARTMENT	105,634	104,411	112,488	8,077	(1,693)
16 CRESAPTOWN CIVIC IMPROVEMENT ASSN	9,332	9,220	9,937	717	(150)
17 ANNE ARUNDEL CO. BOARD OF ELECTIONS	80,633	85,313	88,520	3,207	(672)
18 ANNE ARUNDEL CO. COMMUNITY COLLEGE	1,747	1,718	1,918	200	(42)
19 ANNE ARUNDEL CO. GOVERNMENT	0	0	0	0	0
20 CITY OF ANNAPOLIS	0	0	0	0	0
21 CHESAPEAKE BAY COMMISSION	0	0	0	0	0
22 ANNE ARUNDEL CO. BOARD OF ELECTIONS	*	0	NA	NA	NA
23 MD. HEALTH & HIGHER EDUC.FAC. AUTH.	0	0	0	0	0
24 LEXINGTON MARKET AUTHORITY	63,169	62,148	69,347	7,199	(1,509)
25 BALTO CITY BOARD OF ELECTIONS	*	0	NA	NA	NA
26 CALVERT CO. BOARD OF EDUCATION	46,363	45,621	50,898	5,277	(1,106)
27 CALVERT CO. COMMISSION	86,420	85,025	94,873	9,848	(2,064)
28 CAROLINE CO. BOARD OF EDUCATION	24,187	23,794	26,553	2,759	(578)
29 CAROLINE CO. ROADS BOARD	0	0	0	0	0
30 CAROLINE CO. BOARD OF ELECTIONS	*	0	NA	NA	NA
31 CARROLL CO. BOARD OF EDUCATION	0	0	0	0	0
32 CARROLL CO. BD.OF EDUCATION CAFETERIA	0	0	0	0	0
33 CARROLL CO. COMMISSION	15,486	0	17,001	17,001	(3,563)
34 WESTMINSTER, CITY OF	0	0	0	0	0
35 MANCHESTER, TOWN OF	0	0	0	0	0
36 CARROLL CO. BOARD OF ELECTIONS	*	0	NA	NA	NA
37 CECIL CO. BOARD OF EDUCATION	0	0	0	0	0
38 CECIL CO. COMMISSION	7,054	6,939	7,744	805	(169)
39 ELKTON, TOWN OF	22,001	21,643	24,153	2,510	(526)
40 CECIL CO. SUPR OF ELECTIONS	*	0	NA	NA	NA

* - Data Unavailable

NA - Not Applicable

+ - Adjustments to be made for five (5) years

EMPLOYEES PENSION SYSTEM

LOCAL	INITIAL ACCRUED LIABILITY	ACTUAL ACCRUED LIABILITY BALANCE 6/30/83	BALANCE OF 6/30/83 LIABILITY IF PAID FOR AS LEVEL % OF PAY	DIFFERENCE IN ACCRUED LIABILITIES BETWEEN ACTUAL AND LEVEL % OF PAY REPAYMENTS	ANNUAL ADJUSTMENTS TO FUTURE PAYMENTS UNDER ALTERNATIVE COST APPROACHES+
41 CHARLES CO. COMMUNITY COLLEGE	20,827	20,600	22,864	2,264	(474)
42 CHARLES CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
43 DORCHESTER CO. BOARD OF EDUCATION	31,658	31,153	34,754	3,601	(755)
44 DORCHESTER CO. COMMISSION	2,930	2,886	3,217	331	(69)
45 DORCHESTER CO. ROADS BOARD	0	0	0	0	0
46 CAMBRIDGE, CITY OF	11,817	0	12,973	12,973	(2,719)
47 HOUSING AUTHORITY OF CAMERIDGE	4,743	4,670	5,207	537	(113)
48 HURLOCK, TOWN OF	15,979	15,796	17,016	1,220	(256)
49 DORCHESTER CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
50 FREDERICK CO. BOARD OF EDUCATION	20,284	19,951	22,268	2,317	(486)
51 FREDERICK CO. COMMISSION	172,496	169,721	189,368	19,647	(4,117)
52 BRUNSWICK, TOWN OF	903	892	991	99	(21)
53 WALKERSVILLE, TOWN OF	569	564	625	61	(13)
54 MIDDLETOWN, TOWN OF	3,954	3,903	4,211	308	(64)
55 FREDERICK CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
56 GARRETT CO. BOARD OF EDUCATION	833	813	914	101	(21)
57 GARRETT CO. BOARD OF EDUC.-CAFETERIA	7,448	7,332	8,176	844	(177)
58 GARRETT CO. COMMISSION	4,695	4,617	5,154	537	(113)
59 GARRETT CO. ROADS BOARD	33,821	35,783	37,129	1,346	(282)
60 GARRETT CO. LIQUOR BOARD	1,721	1,692	1,889	197	(41)
61 GARRETT CO. SUPR. OF ELECTIONS	*	0	NA	NA	NA
62 HARFORD CO. BOARD OF EDUCATION	21,595	21,250	23,707	2,457	(515)
63 HARFORD CO. COMMUNITY COLLEGE	1,511	1,482	1,659	177	(37)
64 HARFORD CO. GOVERNMENT	110,054	108,281	120,818	12,537	(2,627)
65 HARFORD CO. LIQUOR BOARD	0	0	0	0	0
66 HARFORD CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
67 HOWARD CO. BOARD OF EDUCATION	53,002	52,153	58,186	6,033	(1,264)
68 HOWARD COMMUNITY COLLEGE	12,640	12,435	13,876	1,441	(302)
69 HOWARD CO. GOVERNMENT	948,491	1,161,942	1,041,261	(120,681)	25,292
70 HOWARD CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
71 KENT CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
72 MONTGOMERY CO. BOARD OF EDUCATION	0	0	0	0	0
73 MONTGOMERY COLLEGE	297,172	293,707	316,453	22,746	(4,767)
74 MONTGOMERY CO. PUBLIC LIBRARY	0	0	0	0	0
75 MONTGOMERY CO. GOVERNMENT	1,855	1,823	2,036	213	(45)
76 GAITHERSBURG, TOWN OF	0	0	0	0	0
77 MD NATIONAL CAPITAL PARK & PLANN COMM	3,919	4,145	4,302	157	(33)
78 INTERSTATE COMM ON POTOMAC RR BASIN	0	0	0	0	0
79 ROCKVILLE, CITY OF	0	0	0	0	0
80 TAKOMA PARK, CITY OF	462	459	507	48	(10)

* - Data Unavailable NA - Not Applicable

+ - Adjustments to be made for five (5) years

EMPLOYEES PENSION SYSTEM

LOCAL	INITIAL ACCRUED LIABILITY	ACTUAL ACCRUED LIABILITY BALANCE 6/30/83	BALANCE OF LIABILITY IF PAID FOR AS LEVEL % OF PAY	DIFFERENCE IN ACCRUED LIABILITIES	ANNUAL ADJUSTMENTS TO FUTURE PAYMENTS
				BETWEEN ACTUAL AND LEVEL % OF PAY REPAYMENTS	UNDER ALTERNATIVE COST APPROACHES*
81 BETHESDA FIRE DEPT.	0	0	0	0	0
82 CHEVY CHASE FIRE DEPT.	0	0	0	0	0
83 PRINCE GEORGES CO. BOARD OF EDUCATION	157,875	155,332	173,316	17,984	(3,769)
84 PRINCE GEORGES CO. COMMUNITY COLLEGE	18,931	18,626	20,783	2,157	(452)
85 PRINCE GEORGES CO. MEMORIAL LIBRARY	15,682	0	17,216	17,216	(3,608)
86 PRINCE GEORGES CO. GOVERNMENT	1,194,625	1,175,403	1,311,469	136,066	(28,516)
87 GREENBELT, CITY OF	4,996	4,919	5,485	566	(119)
88 HYATTSVILLE, CITY OF	2,984	2,938	3,276	338	(71)
89 MOUNT RAINIER, CITY OF	2,508	2,466	2,753	287	(60)
90 WASHINGTON SUBURBAN SANITARY COMM	0	0	0	0	0
91 NEW CARROLLTON, CITY OF	7,056	6,939	7,746	807	(169)
92 UPPER MARLBORO, TOWN OF	0	0	0	0	0
93 CHEVERLY, TOWN OF	37,162	36,557	40,797	4,240	(889)
94 PRINCE GEORGES CO. CROSSING GUARDS	0	0	0	0	0
95 QUEEN ANNE CO. BOARD OF EDUCATION	4,305	0	4,726	4,726	(990)
96 QUEEN ANNE CO. COMMISSION	6,576	6,952	7,219	267	(56)
97 QUEEN ANNE CO. ROADS BOARD	0	0	0	0	0
98 QUEEN ANNE CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
99 ST. MARY'S CO. BOARD OF EDUCATION	41,157	40,492	45,182	4,690	(983)
100 ST. MARY'S CO. COMMISSION	44,204	43,496	48,528	5,032	(1,054)
101 ST. MARY'S CO. NURSING HOME	2,004	0	2,200	2,200	(461)
102 ST. MARY'S CO. SUPR OF ELECTIONS	*	0	NA	NA	NA
103 SOMERSET CO. BOARD OF EDUCATION	0	0	0	0	0
104 SOMERSET CO. COMMISSION	1,488	1,469	1,634	165	(34)
105 SOMERSET CO. SANITARY DISTRICT	0	0	0	0	0
106 SOMERSET CO SUPR OF ELECTIONS	*	0	NA	NA	NA
107 TALBOT CO. BOARD OF EDUCATION	8,202	8,067	9,004	937	(196)
108 TALBOT CO. COUNCIL	10,575	10,402	11,609	1,207	(253)
109 TALBOT CO BOARD OF ELECTIONS	*	0	NA	NA	NA
110 WASHINGTON CO. BOARD OF EDUCATION	0	0	0	0	0
111 HAGERSTOWN JR. COLLEGE	0	0	0	0	0
112 WASHINGTON CO. LIBRARY	0	0	0	0	0
113 WASHINGTON CO. COMMISSION	1,000	984	1,098	114	(24)
114 WASHINGTON CO. ROADS BOARD	0	0	0	0	0
115 WASHINGTON CO. LICENSE COMMISSIONERS	0	0	0	0	0
116 HAGERSTOWN, CITY OF	0	0	0	0	0
117 WASHINGTON CO. SANITARY DISTRICT	0	0	0	0	0
118 WASHINGTON CO SUPR OF ELECTIONS	*	0	NA	NA	NA
119 WOR-WIC TECH COMMUNITY COLLEGE	0	0	0	0	0
120 WICOMICO COUNTY ROADS BOARD	0	0	0	0	0

* - Data Unavailable NA - Not Applicable
+ - Adjustments to be made for five (5) years

EMPLOYEES PENSION SYSTEM

LOCAL	INITIAL ACCRUED LIABILITY	ACTUAL ACCRUED LIABILITY BALANCE 6/30/83	BALANCE OF 6/30/83 LIABILITY IF PAID FOR AS LEVEL % OF PAY	DIFFERENCE IN ACCRUED LIABILITIES BETWEEN ACTUAL AND LEVEL % OF PAY REPAYMENTS	ANNUAL ADJUSTMENTS TO FUTURE PAYMENTS UNDER ALTERNATIVE COST APPROACHES+
121 SALISBURY, CITY OF	10,229	10,061	11,229	1,168	(245)
122 WICOMICO CO. DEPT. RECREATION & PARKS	0	0	0	0	0
123 FRUITLAND, CITY OF	11,462	0	12,583	12,583	(2,637)
124 WICOMICO CO SUPR OF ELECTIONS	*	0	NA	NA	NA
125 WORCHESTER CO. BOARD OF EDUCATION	0	0	0	0	0
126 WORCHESTER CO. COMMISSION	8,720	8,579	9,573	994	(208)
127 WORCHESTER CO. ROADS BOARD	0	0	0	0	0
128 WORCHESTER CO. LIQUOR BOARD	0	0	0	0	0
129 POCOMOKE CITY	2,291	2,256	2,515	259	(54)
130 SNOW HILL, TOWN OF	9,160	9,011	10,056	1,045	(219)
131 BERLIN, TOWN OF	3,467	3,410	3,806	396	(83)
132 WORCHESTER CO BOARD OF ELECTIONS	*	0	NA	NA	NA
133 NORTHEAST MD. WASTE DISPOSAL AUTH.	1,317	1,858	1,409	(449)	94

* - Data Unavailable

NA - Not Applicable

+ - Adjustments to be made for five (5) years

LIMITATIONS ON
SALARY INCREASESA. Background

In determining the on-going costs to fund the Systems, the actuary makes certain assumptions with respect to future pay increases.

To the extent that actual pay increases exceed the assumptions, an actuarial loss occurs. This adds to the total unfunded actuarial liabilities of the Employees' Systems. Under all but Alternative #4 (Multiple Cost Approach), the costs of the unfunded actuarial liabilities are shared jointly by the contributors to the system on the basis of current payroll. This is one major drawback to any cost allocation approach which does not determine on-going costs directly attributable to the various contributors. Thus, excessive salary increases granted by a particular Local Unit and the costs associated with such increases are borne by all Local Units.

The Employees' Pension System currently has a provision specifically limiting compensation increases to prevent abuse related to salary increases (i.e., compensation in any of the three (3) years considered for purposes of benefit determinations may not exceed 20% of the average of the preceding two (2) years). The Retirement System does not contain a specific limitation; however, "extraordinary" increases in the last three (3) years of service are excluded, except in the case of promotion, by decision of the Board of Trustees.

Although it maybe difficult to substantiate, another potential drawback of this type of cost sharing is the degree to which it results in greater overall pay increases than would have occurred if each contributor were assigned costs based on its own unique experience. As an analogy, the total restaurant bill for a group of people who know in advance that the cost will be shared equally will probably be greater than if each member of the group pays individually.

B. Compensation Limitation Procedures

Procedures can be developed, or current procedures reviewed and amended as necessary, to minimize this type of abuse in the Retirement System. Two alternative procedures are presented below. The first one, used by the Texas Teachers' Retirement System, limits the benefit paid by the System and, therefore, added costs resulting from unusually high pay increases do not occur. This provision is somewhat less restrictive than the one currently in place for the Pension System. The second approach, proposed in the State of Washington, does not limit the benefit paid by the System, but allocates the added retirement cost to the contributor responsible for the pay increase.

"Sec.25.31 PERCENTAGE LIMITS ON COMPENSATION INCREASES

(a) A member's credited compensation for each of the last five years of service before retirement may not exceed the credited compensation of the immediately preceding creditable year for service in the same or similar positions by more than 20%. When appropriate TRS may convert salary for part-time employment to its full-time equivalent in determining the permissible increases in credited annual compensation.

(b) TRS will adjust a member's annual compensation at the time of retirement to comply with the limits of this rule and will refund excess deposits to the member after the effective date of retirement.

(c) No adjustment in annual compensation will be made for years before the 1981-82 school year."

Procedure 2 - State of Washington

"BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

NEW SECTION. Sec. 1. There is added to chapter 41.50 RCW a new section to read as follows:

(1) The employer of any employee whose retirement benefits are based in part on excess compensation, as defined in this section, shall, upon receipt of a billing from the department, pay into the appropriate retirement system the actuarial present value at the time of the employee's retirement of the total estimated cost of all present and future benefits from the retirement system attributable to the excess compensation. The state actuary shall determine the estimated cost using the same method and procedure as is used in preparing fiscal note costs for the legislature. However, the director may in the director's discretion decline to bill the employer if the amount due is less than fifty dollars. Accounts unsettled within thirty days of the receipt of the billing shall be assessed an interest penalty of one percent of the amount due for each month or fraction thereof beyond the original thirty-day period.

(2) "Excess compensation," as used in this section, includes any payment that was used in the calculation of the employee's retirement allowance, except regular salary and overtime, but is not limited to a cash out of unused annual leave in excess of two hundred forty hours of such leave, a cash out of any other form of leave, a payment for, or in lieu of, any personal expense, and any other termination or severance payment used in the calculation of the employee's retirement allowance."

WITHDRAWALS
FROM THE MSRPS

A. Background

The cessation of contributions by a contributor to the MSRPS could weaken the financial integrity of the Systems. Remaining contributors must assume the burden for funding the unfunded portion of benefit liabilities left in the Systems by the withdrawing contributor. In addition, the withdrawal will reduce the total payroll base over which "unattributable" and unfunded liabilities are being amortized and thus increase the unfunded actuarial liability contribution rate for remaining employees. To prevent a withdrawing contributor from leaving the System with unfunded liabilities and also increasing the burden on remaining contributors to fund unattributable liabilities, this section considers an approach for imposing withdrawal liability. With minor refinements, the withdrawal liability rules presented below are workable under each of the four alternative cost allocation approaches presented in this report. A similar approach, used by Idaho, is described at the end of this Appendix.

B. Determination of Withdrawal Liability

Upon the election by a contributor to withdraw from the Employees' Retirement and/or Pension Systems, the determination of withdrawal liability would involve three steps:

1. The calculation of the prorata portion of unattributable unfunded liabilities allocable to the withdrawing contributor.
2. The calculation of unfunded liabilities earned to date attributable to the withdrawing contributor.
3. The terms of repayment of the liabilities allocated in steps 1 and 2 above.

Unattributable liabilities, as used in this report, refer to unfunded liabilities of the MSRPS for which all contributing employers bear proportionate responsibility. These liabilities exist primarily because in the past (i.e., prior to 1980) contributors to the MSRPS were not fully funding liabilities accruing each year. Since we have determined that an accurate reconstruction of past contributions and benefit payouts, in order to determine each current contributor's equitable share of current liabilities, cannot be accomplished, we propose that these unattributable liabilities be allocated in proportion to each contributor's current known liabilities.

For the two Employees' Systems the total unattributable liability, at any point in time, will be equal to the difference between total liabilities for Members currently receiving benefits and total System assets. As of June 30, 1983, the total "unattributable liability" of the Employees Retirement System is approximately \$200 million. The Employees Pension System currently has no unattributable liability.

Under this proposal, upon withdrawal from the MSRPS between 7/1/83 and 6/30/84, a contributing employer would be allocated a proportion of the total \$200 million liability measured by dividing the total active member actuarial liability of the withdrawing contributor by the total System's active member actuarial liability.

In addition to the allocation of unattributable liability, a calculation of benefit liabilities earned as of the date of withdrawal on behalf of active members of the withdrawing contributor will be made. Then to the extent that there are assets in excess of the liabilities for members currently receiving benefits, these assets would be allocated to the withdrawn contributor. The difference between liabilities for benefits earned to date and allocated assets, plus the allocated unattributable liability would be the total withdrawal liability allocated to the withdrawing contributor.

Finally, we propose that the period terms of repayment of withdrawal liability be no longer than fifteen years with annual payments based on a level percent of payroll during that period.

C. Example

Facts

1. Local Unit X elects to withdraw from the MSRPS as of 7/1/83.
2. As of the date of withdrawal, Local Unit X has seven active members in the Employees' Retirement System and twenty active members in the Employees' Pension System. The State's actuary has determined that the actuarial liabilities for these active members are \$700,000 and \$500,000 respectively. The value of liabilities for benefits earned to date are \$400,000 and \$200,000 respectively.
3. Also, as of the date of the withdrawal, the Employees' Retirement and Pension Systems have the following:

	Employees' Systems (\$ in millions)	
	<u>Retirement</u>	<u>Pension</u>
a. Total Assets	\$ 971	\$223
b. Total Actuarial Liabilities	\$2,527	\$219
c. Liabilities for Members Receiving Payments	\$1,171	\$ 10
d. Unattributable Liabilities (c-a)	\$ 200	N/A

4. Determination of Withdrawal Liability

a. Unattributable Liability Allocation --
Employees Retirement System Only

$$(\$200 \text{ million}) \times \frac{(.7)}{(2,527 - 1171)} = \$103,245$$

b. Liability for Active Members' benefits earned to date

(1) Employees' Retirement System

Since assets do not exceed the liability for members receiving payments, the unfunded liability here is equal to the total liability \$400,000

(2) Employees' Pension System

In this system there are \$213 million (\$223 - \$10) of assets available to fund \$209 million of active member liabilities. Therefore, this system is fully funded \$ 0

c. Total withdrawal liability (a + b) \$503,245

d. Repayment of Withdrawal Liability

Amortization of \$503,245 over fifteen years with payments based on a level percent of pay results in an initial payment of about \$38,000, increasing by 5% each year thereafter.

D. Example of Withdrawal Liability Provisions (Idaho)

An excerpt from the Idaho Law, illustrating their handling of assessing withdrawal liability follows.

PUBLIC EMPLOYEE
RETIREMENT SYSTEM OF IDAHO LAW

59-1309A. PROCEDURE FOR COMPLETE OR PARTIAL WITHDRAWAL OF POLITICAL SUBDIVISIONS -- WITHDRAWAL CONTRIBUTIONS. (1) An employer incurring complete withdrawal or partial withdrawal after December 31, 1980, shall be required to make withdrawal contributions, all as provided in this section.

(2) Complete withdrawal occurs for a political subdivision on the date it permanently ceases to employ active members.

(3) Partial withdrawal occurs for a political subdivision when its average membership declines from one calendar year to the next by more than twenty-five (25) members and twenty-five per cent (25%) of the average membership in the earlier year. The date of partial withdrawal is the first day after the end of the later year.

(4) "Average membership" for a calendar year shall equal one-twelfth ($1/12$) of the sum of the number of active members employed during each month of that year.

(5) Withdrawal contributions shall commence on the first day of the fourth month after the date of complete withdrawal or partial withdrawal. The monthly amount of withdrawal contribution of an employer incurring complete withdrawal shall be one-twelfth ($1/12$) of the employer's contribution during the last complete calendar year prior to such date. The monthly amount of withdrawal contribution of an employer incurring partial withdrawal shall be one-twelfth ($1/12$) of (c) reduced proportionately by the ratio of (a) to (b) as follows:

- (a) The average membership of the employer estimated by the board for the year commencing on such date;
- (b) The average membership of the employer during the second calendar year prior to such date;
- (c) The employer's contribution payable during the second calendar year prior to such date.

(6) Withdrawal contributions should continue until the withdrawal liability becomes nil.

(7) On the date of complete withdrawal, the withdrawal liability of an employer is (a) multiplied by the fraction (b)/(c) as follows:

- (a) The excess of the actuarial present value of the vested benefits of the system's members over the fair value of its assets, both as of the date of the actuarial valuation for the fiscal year preceding such date;
- (b) The total employer contributions of the employer during the five (5) complete calendar years immediately prior to such date;
- (c) The total employer contributions of all employers during the five (5) complete calendar years immediately prior to such date.

(8) On the date of partial withdrawal, the withdrawal liability of an employer is the same as if complete withdrawal had occurred, reduced proportionately by the ratio of (a) to (b) as follows:

- (a) The average membership of the employer estimated by the board for the year commencing on such date;
- (b) The average membership of the employer during the second calendar year prior to such date;
- (9) After the date of an employer's complete withdrawal or partial withdrawal, the withdrawal liability is the initial withdrawal liability decreased by the accumulation of withdrawal contributions, all adjusted for interest. Interest charges shall be on the basis used in determining the original withdrawal liability. Interest credits shall be based upon quarter-year investment earnings of the system. If partial withdrawal occurs, the amounts of withdrawal liability and withdrawal contribution shall be adjusted by appropriate recalculations after the average membership of the employer is known for the year commencing on the date of partial withdrawal. If the average membership of an employer which has incurred a partial withdrawal exceeds for each of three (3) consecutive years the average membership during the second calendar year prior to the date of partial withdrawal, the withdrawal liability shall become nil upon the final day of the last of such three (3) years, regardless of the accumulation of the previously computed withdrawal liability.

MEMBERSHIP TRANSFERS

A. Background: The Problem

Under current procedures, the effect on Local Units costs resulting from membership transfers from the Retirement System to the Pension System is inconsistent. First, no adjustment is made to the accrued liability allocation of 1980 to reflect the significant decrease in liability resulting from a transfer. Therefore, the current procedures may be viewed as inequitable to the Local Units that have experienced numerous membership transfers. Further, when there is a payroll shift from the Retirement System to the Pension System, as occurs whenever membership transfers occur, the future funding burden on Local Units still contributing to the Retirement System increases. Therefore, current procedures in this respect may be viewed as inequitable to Local Units that continue in the Retirement System. Under three (3) of the alternative approaches proposed here, one part of this inconsistency will continue unless certain modifications are made. Under Alternative #4 (Multiple Costs), this problem does not exist, as the costs of the Employees' Systems are determined individually for each contributor to the Systems and, therefore, each contributor funds its own true costs.

B. Suggested Approach

The first problem addressed above is the inequity to Local Units that have experienced numerous membership transfers without adjustments being made to their 1980 accrued liability allocation. Since both cost Alternative #1 (Single Cost Approach), and Alternative #2 (Two Cost Approach) cancel the 1980 unfunded amounts without determining new liability allocations, this problem is eliminated. Alternative #3 (Current Approach Modified) also cancels the 1980 allocation; however, a new liability allocation will be determined. If this cost allocation approach is used, we suggest that on a triennial basis, a re-examination of the initial allocations be made in order to make adjustments, as necessary. This re-examination would only have to be performed for those Local Units that have experienced membership transfers.

The second problem described in Part A above is the inequity to Local Units remaining in the Retirement System in having to fund a continually greater share of that System's liabilities as membership transfers cause payroll of the Retirement System to decrease. Our suggested approach to this problem is to decrease, if not eliminate, the amount of System assets that are transferred annually from the Retirement System to the Pension System on account of membership transfers. This will result in a gradual shift of the funding burden of unattributable unfunded actuarial liabilities from only the current contributors to the Employees' Retirement System to all contributors of the Employees' Systems. This approach, incidentally, has already been recommended indirectly for the State's funding of the Employees' Systems in our major study of the financing of the MSRPS. Our recommendation to combine the funding of the Retirement Systems and the Pension Systems is intended to solve the problem of an inevitable escalation in the unfunded actuarial liability contribution rate of the Employees' Retirement System.

ALLOCATION OF ASSETS AND LIABILITIES

A. Background

The present basis for financing the MSRPS, established in 1980, requires an annual determination of assets and actuarial liabilities to be allocated to the State and to the Local Units. As discussed in detail in our July 1983 study, "An Analysis Of Financing the Maryland State Retirement Systems", this method of financing contained some technical flaws and inequities.

1. The unfunded actuarial liability allocated to each Local Unit was frozen in 1980 and, therefore, ignored future changes in such liabilities resulting from transfers from the Retirement System to the Pension System.
2. The minimum annual repayment of the unfunded actuarial liabilities was based on a forty year level dollar amortization basis for Local Units, and a forty year level percent of pay basis for the State.
3. Subsequent to 1980, the annual allocation of assets between the State and Local Units ignored the actual contributions being made by each contributor.
4. The amortization factors used to determine the Local Units' annual repayments assumed payments due at the end of each fiscal year, whereas the actual payments were due in mid-year. This resulted in the State having interest-free use of the Local Units' payments for six months.

Except for Alternative #1 (Single Cost Approach), all alternatives require some allocation of assets and liabilities between the State and the Local Units. Below we present our approach to performing these asset and liability allocations, which eliminates the problems stated above. At the end of the section we present the cost results of our recalculation of individual accrued liabilities called for under Alternative #3 (Current Approach Modified).

B. Initial Allocation of Assets and Liabilities between the State and Locals Combined1. Assets

For cost Alternatives #2, #3, and #4 of this report an initial allocation of assets between the State and Local Units is needed to determine subsequent on-going System costs. We propose that this asset allocation be performed during the first actuarial valuation following the implementation of a particular cost allocation approach. Further, we propose that the asset allocation be performed in such a way that the funded position (i.e., assets relative to liabilities) be the same for all contributors to the Employees' Systems.

Except for the reflection of contributions made since 1980 as described in Appendix I, our proposed approach will ignore past cash flows. We have found that reconstructing past cash flows (contributions, investment income, benefit payments) is next to impossible, and may also be inappropriate. Past contributions to the Employees' Systems were not earmarked for individual members of the Systems, but rather pooled for all members combined. In this way contributors to the System were able to collectively share the risks of total plan experience.

2. Liabilities

Generally speaking, the actuarial liabilities of the MSRPS are determined on a individual by individual basis, and therefore, at any point in time the exact liabilities of each contributor could be determined. However, liabilities for retired members and beneficiaries receiving payments might be considered "unattributable liabilities" (See Appendix III) because:

1. In the past the MSRPS was not always on an advance funding basis, and therefore, in the Employees Retirement System these liabilities were not funded during the working careers of these members.
2. Many retired members have had split careers in the sense that they accrued pension benefits for service with more than one contributor. Current data records for these members only show the last place of employment.
3. Prior contributors to the MSRPS who have since withdrawn from the Systems, still have retired members receiving payments.

For these reasons, we suggest that consideration be given to allocating liabilities for retired members to all current contributors proportionately, based on active member liability for each contributor.

C. Initial Allocation of Assets and Liabilities Among Individual Local Units

For Alternative #4 (Multiple Cost Approach), a further split of assets and liabilities is needed for each individual Local Unit. We propose that the approach used be the same as that used to allocate assets and liabilities between the State and the Local Units combined.

D. Subsequent Allocation of Assets and Liabilities

As long as on-going costs, both the Normal Cost and the unfunded actuarial liability costs are determined on the same basis for each contributor, and that repayment of unfunded liabilities is on the same basis (e.g., level % of pay) subsequent allocations of assets and liabilities among system contributors can be handled similar to the initial allocation.

For Alternatives #2 and #3 (Two Cost Approach and Current Approach Modified), the initial and subsequent allocations of assets and liabilities may be performed as described in part C above. However, Alternative #4 (Multiple Cost Approach) will require the setting up of individual accounts for each contributor in the future to reflect actual on-going contributions and benefit payments made. As mentioned earlier, Alternative #1 (Single Cost Approach) does not require any allocation of assets and liabilities.

E. Redetermination of Accrued Liabilities under Alternative #3

Alternative #3, which is a refinement of the current financing approach, requires an initial unfunded liability allocation to each individual Local Unit. We propose that this liability be determined on a "benefits earned to date" basis and that the liability be determined for only the Employees' Retirement System.

This approach to determining and allocating past service liabilities will result in substantially lower liabilities than would result if we recalculated liabilities today using the 1980 approach. The approach used in 1980 allocated past as well as projected liabilities to each contributor.

This approach also minimizes the problem caused by future transfers not affecting the initial unfunded liability allocation. This is because the liability for benefits earned to date for any member under the Retirement System less accumulated employee contributions, will seldom be less than the ultimate liability for that member under the Pension System.

The reason we suggest that no unfunded liability be allocated under the Pension System is because the Pension System is fully funded. Below we present the unfunded liability which would have been allocated to each Local Unit as of 6/30/83, had cost allocation Alternative #3 been in effect at that time.

RECALCULATED ACCRUED
LIABILITIES AS OF 6/30/83
UNDER ALTERNATIVE #3
(CURRENT APPROACH MODIFIED)

LOCAL	—EMPLOYEES' RETIREMENT—		—EMPLOYEES' PENSION—	
	CURRENT LIABILITY	PROPOSED LIABILITY	CURRENT LIABILITY	PROPOSED LIABILITY
1 BALTIMORE CO SUPR OF ELECTIONS	\$0	\$247,774	\$0	\$0
2 MARYLAND FOOD CENTER AUTHORITY	73,240	61,180	18,061	0
3 REGIONAL PLANNING COUNCIL	1,428,286	0	39,902	0
4 METROPOLITAN TRANSIT AUTHORITY	2,355,357	2,315,386	125,916	0
5 ALLEGANY COUNTY BOARD OF EDUCATION	3,682,816	2,276,780	0	0
6 ALLEGANY COUNTY COMMUNITY COLLEGE	116,951	87,993	23,026	0
7 ALLEGANY COUNTY LIBRARY	13,786	5,293	0	0
8 ALLEGANY COUNTY COMMISSION	3,623,786	2,575,150	0	0
9 ALLEGANY COUNTY BOARD OF LICENSE COMM	8,815	4,634	1,167	0
10 ALLEGANY COUNTY SANITARY DISTRICT	198,683	248,312	1,561	0
11 CUMBERLAND, CITY	6,489,479	3,571,172	0	0
12 REGIONAL EDUC SERVICES OF APPALACHIA	174,273	102,683	2,269	0
13 HEALTH SYSTEMS AGENCY-WESTERN MARYLAND	73,429	27,874	0	0
14 ALLEGANY COUNTY TRANSIT AUTHORITY	84,744	61,120	6,191	0
15 CUMBERLAND CITY POLICE DEPARTMENT	1,247,753	874,741	104,411	0
16 CRESAPTOWN CIVIC IMPROVEMENT ASSN	0	0	9,220	0
17 ANNE ARUNDEL CO. BOARD OF EDUCATION	8,001,474	5,251,009	85,313	0
18 ANNE ARUNDEL CO. COMMUNITY COLLEGE	225,075	365,617	1,718	0
19 ANNE ARUNDEL CO. GOVERNMENT	5,699,153	4,296,689	0	0
20 CITY OF ANNAPOLIS	2,021,201	1,576,840	0	0
21 CHESAPEAKE BAY COMMISSION	0	19,466	0	0
22 ANNE ARUNDEL CO. BOARD OF ELECTIONS	0	128,616	0	0
23 MD. HEALTH & HIGHER EDUC.FAC. AUTH.	0	23,034	0	0
24 LEXINGTON MARKET AUTHORITY	248,804	53,341	62,148	0
25 BALTIMORE CITY BOARD OF ELECTIONS	0	356,564	0	0
26 CALVERT CO. BOARD OF EDUCATION	790,664	626,680	45,621	0
27 CALVERT CO. COMMISSION	1,320,241	1,396,611	85,025	0
28 CAROLINE CO. BOARD OF EDUCATION	760,485	390,393	23,794	0
29 CAROLINE CO. ROADS BOARD	314,076	93,586	0	0
30 CAROLINE CO. BOARD OF ELECTIONS	0	12,147	0	0
31 CARROLL CO. BOARD OF EDUCATION	1,559,994	1,545,766	0	0
32 CARROLL CO. BOARD OF EDUCATION CAFETERIA	786,588	795,942	0	0
33 CARROLL CO. COMMISSION	3,616,768	2,239,957	0	0
34 WESTMINSTER, CITY OF	764,092	580,877	0	0
35 MANCHESTER, TOWN OF	41,922	49,159	0	0
36 CARROLL CO. BOARD OF ELECTIONS	0	25,827	0	0
37 CECIL CO. BOARD OF EDUCATION	1,165,880	1,348,803	0	0
38 CECIL CO. COMMISSION	1,372,722	511,475	6,939	0
39 ELKTON, TOWN OF	404,489	307,306	21,643	0
40 CECIL CO. SUPR OF ELECTIONS	0	34,169	0	0

RECALCULATED ACCRUED
LIABILITIES AS OF 6/30/83
UNDER ALTERNATIVE #3
(CURRENT APPROACH MODIFIED)

LOCAL	—EMPLOYEES' RETIREMENT—		—EMPLOYEES' PENSION—	
	CURRENT LIABILITY	PROPOSED LIABILITY	CURRENT LIABILITY	PROPOSED LIABILITY
41 CHARLES CO. COMMUNITY COLLEGE	255,795	117,712	20,600	0
42 CHARLES CO. SUPR OF ELECTIONS	0	14,616	0	0
43 DORCHESTER CO. BOARD OF EDUCATION	807,024	665,325	31,153	0
44 DORCHESTER CO. COMMISSION	764,381	706,963	2,886	0
45 DORCHESTER CO. ROADS BOARD	828,274	480,643	0	0
46 CAMERIDGE, CITY OF	1,420,770	753,717	0	0
47 HOUSING AUTHORITY OF CAMERIDGE	55,642	36,595	4,670	0
48 HURLOCK, TOWN OF	0	0	15,796	0
49 DORCHESTER CO. SUPR OF ELECTIONS	0	13,917	0	0
50 FREDERICK CO. BOARD OF EDUCATION	4,007,184	2,985,370	19,951	0
51 FREDERICK CO. COMMISSION	5,028,958	3,385,980	169,721	0
52 BRUNSWICK, TOWN OF	300,934	153,969	892	0
53 WALKERSVILLE, TOWN OF	65,297	29,282	564	0
54 MIDDLETOWN, TOWN OF	0	0	3,903	0
55 FREDERICK CO. SUPR OF ELECTIONS	0	10,620	0	0
56 GARRETT CO. BOARD OF EDUCATION	415,691	335,356	813	0
57 GARRETT CO. BOARD OF EDUC.-CAFETERIA	379,672	293,276	7,332	0
58 GARRETT CO. COMMISSION	998,638	246,197	4,617	0
59 GARRETT CO. ROADS BOARD	1,859,578	918,123	35,783	0
60 GARRETT CO. LIQUOR BOARD	54,475	0	1,692	0
61 GARRETT CO. SUPR. OF ELECTIONS	0	7,628	0	0
62 HARFORD CO. BOARD OF EDUCATION	3,230,406	2,819,898	21,250	0
63 HARFORD CO. COMMUNITY COLLEGE	141,900	94,010	1,482	0
64 HARFORD CO. GOVERNMENT	9,252,485	7,171,744	108,281	0
65 HARFORD CO. LIQUOR BOARD	141,100	0	0	0
66 HARFORD CO. SUPR OF ELECTIONS	0	64,240	0	0
67 HOWARD CO. BOARD OF EDUCATION	2,124,048	1,975,933	52,153	0
68 HOWARD COMMUNITY COLLEGE	51,314	38,026	12,435	0
69 HOWARD CO. GOVERNMENT	12,652,747	8,828,334	1,161,942	0
70 HOWARD CO. SUPR OF ELECTIONS	0	41,807	0	0
71 KENT CO. SUPR OF ELECTIONS	0	12,310	0	0
72 MONTGOMERY CO. BOARD OF EDUCATION	1,285,179	724,077	0	0
73 MONTGOMERY COLLEGE	912,198	1,018,922	293,707	0
74 MONTGOMERY CO. PUBLIC LIBRARY	43,909	116,776	0	0
75 MONTGOMERY CO. GOVERNMENT	3,211,413	2,110,658	1,823	0
76 GAITHERSBURG, TOWN OF	62,385	0	0	0
77 MD NATIONAL CAPITAL PARK & PLANN COMM	1,198,695	356,953	4,145	0
78 INTERSTATE COMM ON POTOMAC RR BASIN	61,073	0	0	0
79 ROCKVILLE, CITY OF	548,531	298,284	0	0
80 TAKOMA PARK, CITY OF	1,912,783	951,912	459	0

RECALCULATED ACCRUED
LIABILITIES AS OF 6/30/83
UNDER ALTERNATIVE #3
(CURRENT APPROACH MODIFIED)

LOCAL	—EMPLOYEES' RETIREMENT—		—EMPLOYEES' PENSION—	
	CURRENT LIABILITY	PROPOSED LIABILITY	CURRENT LIABILITY	PROPOSED LIABILITY
81 BETHESDA FIRE DEPT.	28,477	0	0	0
82 CHEVY CHASE FIRE DEPT.	57,122	0	0	0
83 PRINCE GEORGES CO. BOARD OF EDUCATION	38,699,315	25,600,773	155,332	0
84 PRINCE GEORGES CO. COMMUNITY COLLEGE	650,919	468,058	18,626	0
85 PRINCE GEORGES CO. MEMORIAL LIBRARY	337,647	284,297	0	0
86 PRINCE GEORGES CO. GOVERNMENT	35,537,142	21,423,814	1,175,403	0
87 GREENBELT, CITY OF	1,871,112	1,211,840	4,919	0
88 HYATTSVILLE, CITY OF	1,298,468	618,231	2,938	0
89 MOUNT RAINIER, CITY OF	237,208	222,681	2,466	0
90 WASHINGTON SUBURBAN SANITARY COMM	3,419,632	1,977,816	0	0
91 NEW CARROLLTON, CITY OF	283,852	178,478	6,939	0
92 UPPER MARLBORO, TOWN OF	37,304	42,712	0	0
93 CHEVERLY, TOWN OF	270,394	154,978	36,557	0
94 PRINCE GEORGES CO. CROSSING GUARDS	385,548	224,495	0	0
95 QUEEN ANNE CO. BOARD OF EDUCATION	589,505	475,988	0	0
96 QUEEN ANNE CO. COMMISSION	810,684	605,204	6,952	0
97 QUEEN ANNE CO. ROADS BOARD	769,169	789,904	0	0
98 QUEEN ANNE CO. SUPR OF ELECTIONS	0	16,454	0	0
99 ST. MARY'S CO. BOARD OF EDUCATION	1,553,606	1,171,665	40,492	0
100 ST. MARY'S CO. COMMISSION	1,447,096	1,302,841	43,496	0
101 ST. MARY'S CO. NURSING HOME	465,392	309,923	0	0
102 ST. MARY'S CO. SUPR OF ELECTIONS	0	37,800	0	0
103 SOMERSET CO. BOARD OF EDUCATION	195,548	296,078	0	0
104 SOMERSET CO. COMMISSION	582,933	510,313	1,469	0
105 SOMERSET CO. SANITARY DISTRICT	31,485	34,594	0	0
106 SOMERSET CO. SUPR OF ELECTIONS	0	28,045	0	0
107 TALBOT CO. BOARD OF EDUCATION	785,674	326,350	8,067	0
108 TALBOT CO. COUNCIL	273,542	260,463	10,402	0
109 TALBOT CO. SUPR OF ELECTIONS	0	18,751	0	0
110 WASHINGTON CO. BOARD OF EDUCATION	4,260,984	3,069,520	0	0
111 HAGERSTOWN JR. COLLEGE	90,337	53,323	0	0
112 WASHINGTON CO. LIBRARY	88,986	55,662	0	0
113 WASHINGTON CO. COMMISSION	402,981	107,199	984	0
114 WASHINGTON CO. ROADS BOARD	83,529	117,394	0	0
115 WASHINGTON CO. LICENSE COMMISSIONERS	1,207	2,876	0	0
116 HAGERSTOWN, CITY OF	8,840,043	4,883,620	0	0
117 WASHINGTON CO. SANITARY DISTRICT	10,638	30,537	0	0
118 WASHINGTON CO. SUPR OF ELECTIONS	0	86,112	0	0
119 WOR-WIC TECH COMMUNITY COLLEGE	0	0	0	0
120 WICOMICO COUNTY ROADS BOARD	62,739	0	0	0

RECALCULATED ACCRUED
LIABILITIES AS OF 6/30/83
UNDER ALTERNATIVE #3
(CURRENT APPROACH MODIFIED)

LOCAL	—EMPLOYEES' RETIREMENT—		—EMPLOYEES' PENSION—	
	CURRENT LIABILITY	PROPOSED LIABILITY	CURRENT LIABILITY	PROPOSED LIABILITY
121 SALISBURY, CITY OF	3,574,479	2,756,120	10,061	0
122 WICOMICO CO. DEPT. RECREATION & PARKS	58,987	47,347	0	0
123 FRUITLAND, CITY OF	0	5,961	0	0
124 WICOMICO CO. SUPR OF ELECTIONS	0	13,190	0	0
125 WORCHESTER CO. BOARD OF EDUCATION	290,778	223,315	0	0
126 WORCHESTER CO. COMMISSION	867,775	677,892	8,579	0
127 WORCHESTER CO. ROADS BOARD	1,309,123	571,241	0	0
128 WORCHESTER CO. LIQUOR BOARD	263,901	209,955	0	0
129 POCOMOKE CITY	321,472	297,651	2,256	0
130 SNOW HILL, TOWN OF	340,330	39,743	9,011	0
131 BERLIN, TOWN OF	193,345	196,911	3,410	0
132 WORCHESTER CO. BOARD OF ELECTIONS	0	20,885	0	0
133 NORTHEAST MD. WASTE DISPOSAL AUTH.	8,291	9,381	1,858	0
TOTALS:	\$214,426,204	\$144,337,520	\$4,192,192	\$0

COST COMPARISONS
EMPLOYEES RETIREMENT
AND PENSION SYSTEMS
(dollars in millions)

	<u>Current</u> 6/30/83 (Unit Credit)		6/30/83 Costs (Entry Age)		#1 Single Cost (Merged)	#2 Two Cost (State vs. Locals)		#3 Two Cost (State vs Locals)		#4 Multiple Cost (Separate System)
STATE	\$124.0		\$122.1		\$120.8	\$122.1		\$122.1		\$122.1
LOCAL'S	38.2		37.9		32.8	31.5		36.6		43.8
TOTAL	\$162.2		\$160.0		\$153.6	\$153.6		\$158.7		\$165.9
<div> <div>COMMENTS</div> <div>→</div> </div>										
<u>Evaluation Criteria</u>					Locals Subsidize State	Lowest Cost Impact on Locals	Very Difficult to Understand	Highest Cost Impact and Fluctuations		
1. Future Cost Fluctuations					Low	Low	Low	Very High		
2. Individual Equity					None	Some	More	Complete		
3. Complexity					Simple	Simple	Difficult	Average		
4. Initial Cost Impact					Low	Lowest	Average	Highest		

